

10/715,846

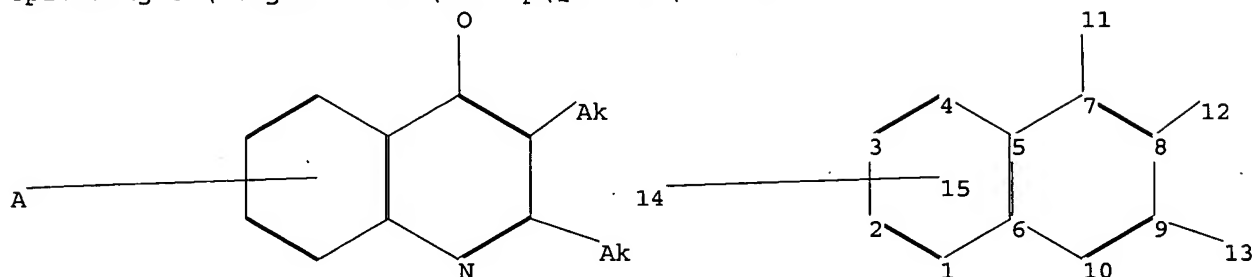
\* \* \* \* \* STN Columbus \* \* \* \* \*

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chain nodes :

11 12 13 14

ring nodes :

1 2 3 4 5 6 7 8 9 10

chain bonds :

7-11 8-12 9-13

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 9-10

exact/norm bonds :

7-11 8-12 9-13

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 9-10

isolated ring systems :

containing 1 :

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom

11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS

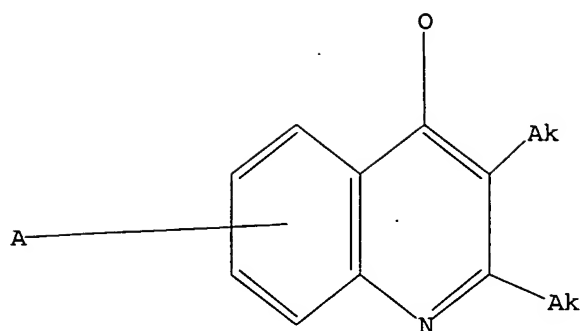
L1 STRUCTURE UPLOADED

=> d 11

L1 HAS NO ANSWERS

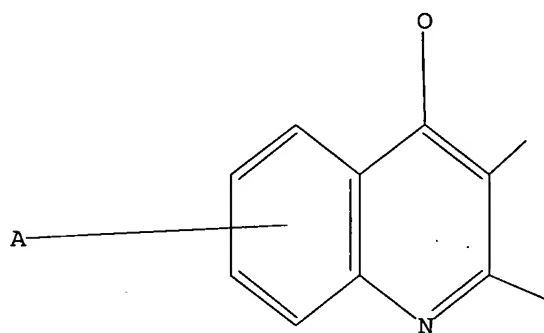
L1 STR

10/715,846



Structure attributes must be viewed using STN Express query preparation.

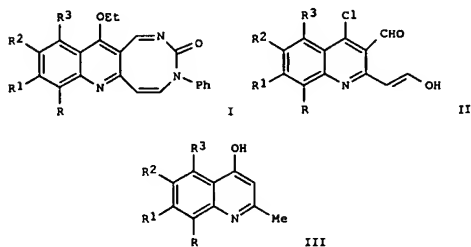
=> d l3  
L3 HAS NO ANSWERS  
L3 STR



Structure attributes must be viewed using STN Express query preparation.

=> file ca

L9 ANSWER 1 OF 25 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 142:280182 CA  
 TITLE: Synthesis of 12-ethoxy-3-oxo-4-phenylquinol[3,2-c][1,3]diazocines via Vilsmeier-Haack reaction  
 AUTHOR(S): Kumar, R. Nandha; Suresh, T.; Dhanabal, T.; Mohan, P. S.  
 CORPORATE SOURCE: Department of Chemistry, Bharathiar University, Coimbatore, 641 046, India  
 SOURCE: Journal of the Indian Chemical Society (2004), 81(7), 598-601  
 CODEN: JICSAH; ISSN: 0019-4522  
 PUBLISHER: Indian Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI



AB The title compds. I (R, R1, R2, R3 = H, H, H, H; Me, H, H, H; H, Me, H, H; H, H, Cl, H; Me, H, H, Me) were prepared in 55-75% yields by heterocyclization of quinolinecarboxaldehydes II with PhNHCONH2 in EtOH containing KOH. II were prepared by Vilsmeier reactions of methylquinolinols III.

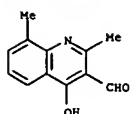
IT 34550-29-3P  
 RL: BYP (Byproduct); PREP (Preparation)  
 (formation of hydroxyquinolinecarboxaldehydes in preparation of ethoxy(phenyl)quinolinodiazocinones via Vilsmeier-Haack formylation of methylquinolinols and cyclization of (hydroxyethenyl)quinolinecarboxaldehydes with phenylurea)  
 RN 34550-29-3  
 CN 3-Quinolinecarboxaldehyde, 4-hydroxy-2,8-dimethyl- (9CI) (CA INDEX NAME)

L9 ANSWER 2 OF 25 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 136:294842 CA  
 TITLE: Synthesis and use of tetrahydropyridazino[4,5-b]quinoline-diones and their use for the treatment of pain  
 INVENTOR(S): Brown, Dean Gordon; Urbanek, Rebecca Ann; Murphy, Megan; Xiao, Wenhua; McLaren, Frances Marie; Vacek, Edward; Bare, Thomas; Horschler, Carey Lynn; Barlaam, Christine; Steelman, Gary Banks; Alford, Vernon  
 PATENT ASSIGNEE(S): AstraZeneca AB, Swed.  
 SOURCE: PCT Int. Appl., 39 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE       |
|---|------|----------|-----------------|------------|
| WO 2002026741   | A1   | 20020404 | WO 2001-SE2126  | 20010928   |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TH, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TN |      |          |                 |            |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  |      |          |                 |            |
| AU 2001092500   | A5   | 20020408 | AU 2001-92500   | 20010928   |
| EP 1325004  | A1   | 20030709 | EP 2001-972862  | 20010928   |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR   |      |          |                 |            |
| JP 2004509865   | T2   | 20040402 | JP 2002-531125  | 20010928   |
| US 2004053929   | A1   | 20040318 | US 2003-381921  | 20030908   |
| PRIORITY APPL. INFO.:   |      |          | US 2000-236753P | P 20000929 |
|   |      |          | WO 2001-SE2126  | W 20010928 |

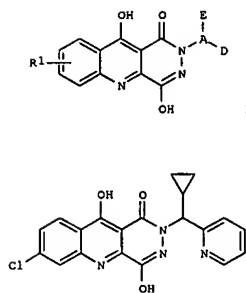
OTHER SOURCE(S): MARPAT 136:294842  
 GI

L9 ANSWER 1 OF 25 CA COPYRIGHT 2005 ACS on STN (Continued)



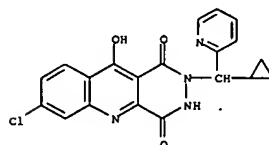
IT 34550-29-3P 503552-65-6P 503552-66-7P  
 583861-80-7P  
 RL: BYP (Byproduct); PREP (Preparation)  
 (formation of hydroxyquinolinecarboxaldehydes in preparation of ethoxy(phenyl)quinolinodiazocinones via Vilsmeier-Haack formylation of methylquinolinols and cyclization of (hydroxyethenyl)quinolinecarboxaldehydes with phenylurea)  
 IT 847233-66-3P 847233-67-4P 847233-68-5P  
 847233-69-6P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of ethoxy(phenyl)quinolinodiazocinones via Vilsmeier-Haack formylation of methylquinolinols and cyclization of (hydroxyethenyl)quinolinecarboxaldehydes with phenylurea)  
 REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE  
 FORMAT

L9 ANSWER 2 OF 25 CA COPYRIGHT 2005 ACS on STN (Continued)



AB Title compds. I (R1 = halo; A = CH; E = alkyl, Ph, cycloalkyl; D = pyridyl, N-oxide of pyridyl) were prepared. Six synthetic examples were provided. For instance, tert-butylcarbazate was condensed with (cyclopropyl)(pyridin-2-yl)ketone, the product reduced and condensed with 7-chloro-4-hydroxy-2-(pyrrolidinylcarbonyl)quinoline-3-carboxylic acid (preparation given). The resulting amide was treated with methanesulfonic acid resulting in the formation of II. Example compds. gave a range of Ki = 228 nM to >10 μM for the NMDA glycine receptor; II had Ki = 996 nM. I are useful for the treatment of pain.

IT 406932-96-5P  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (drug; synthesis and use of tetrahydropyridazino[4,5-b]quinoline-diones and use for treatment of pain)  
 RN 406932-96-5 CA  
 CN Pyridazino[4,5-b]quinoline-1,4-dione, 7-chloro-2-(cyclopropyl-2-pyridinylmethyl)-2,3-dihydro-10-hydroxy- (9CI) (CA INDEX NAME)



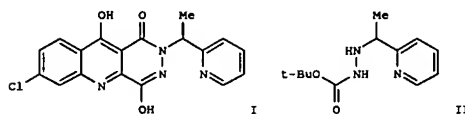
IT 406932-96-5P 406933-00-4P 406933-04-8P

L9 ANSWER 2 OF 25 CA COPYRIGHT 2005 ACS on STN (Continued)  
 406933-09-39 406933-13-99 406933-15-19  
 406933-17-39 406933-19-59 406933-20-89  
 406933-22-09 406933-28-69  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (drug; synthesis and use of tetrahydropyridazino[4,5-b]quinoline-diones and use for treatment of pain)  
 IT 147494-01-7P, Dimethyl 7-chloro-4-hydroxyquinoline-2,3-dicarboxylate 170143-35-8P, 3-Carbomethoxy-7-chloro-4-hydroxyquinoline-2-carboxylic acid 179543-91-0P, 7-Chloro-4-hydroxy-2-[(pyrrolidinylcarbonyl)quinoline-3-carboxylic acid 179543-97-6P, 3-Carbomethoxy-2-[(pyrrolidinylcarbonyl)-7-chloro-4-hydroxyquinoline 406933-99-8P 406933-03-7P 406933-07-1P 406933-11-7P 406933-25-3P 406933-27-5P 406933-29-7P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (intermediate; synthesis and use of tetrahydropyridazino[4,5-b]quinoline-diones and use for treatment of pain)  
 REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
 FORMAT

L9 ANSWER 3 OF 25 CA COPYRIGHT 2005 ACS on STN  
 136:294841 CA  
 ACCESSION NUMBER: Synthesis of a substituted tetrahydropyridazino[4,5-b]quinoline-dione and the use thereof for the treatment of pain  
 TITLE: Brown, Dean Gordon; Urbanek, Rebecca Ann; Murphy, Megan; Xiao, Wenhua; McLaren, Frances Marie; Vacek, Edward; Bare, Thomas; Horchler, Carey Lynn; Barlaam, Christine; Steelman, Gary Banks; Alford, Vernon AstraZeneca AB, Swed.  
 INVENTOR(S): PCT Int. Appl., 32 pp.  
 SOURCE: CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

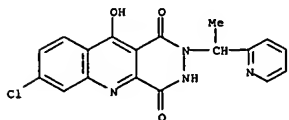
| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE       |
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| WO 2002026740   | A1   | 20020404 | WO 2001-SE2125  | 20010928   |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG |      |          |                 |            |
| AU 2001092499   | A5   | 20020408 | AU 2001-92499   | 20010928   |
| EP 1325003  | A1   | 20030709 | EP 2001-972861  | 20010928   |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LV, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR   |      |          |                 |            |
| JP 2004509964   | T2   | 20040402 | JP 2002-531124  | 20010928   |
| US 2004033930   | A1   | 20040318 | US 2003-381922  | 20030908   |
| PRIORITY APPL. INFO.:   |      |          | US 2000-236630P | P 20000929 |
|   |      |          | WO 2001-SE2125  | W 20010928 |

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AB Compound I and enantiomers thereof are disclosed. Examples include synthesis of I, anionic and cationic salts thereof and bioassays including

L9 ANSWER 3 OF 25 CA COPYRIGHT 2005 ACS on STN (Continued)  
 binding data for the NMDA glycine site. For instance, tert-butylcarbazate is condensed with 2-acetylpyridine, the product reduced to give II and the enantiomers sepd. (abs. configuration based on comparison to a literature intermediate). (-)-II was coupled to 7-chloro-4-hydroxy-2-((pyrrolidinylcarbonyl)quinoline-3-carboxylic acid (prepn. given) and the product treated with methanesulfonic acid to give (-)-I (III) isolated as the methanesulfonate salt. III had  $K_i = 194$  nM for the NMDA glycine site while (+)-I had  $K_i = 3400$  nM in the same assay. III is useful in the treatment of pain.  
 IT 406933-27-5P  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (drug; synthesis of a substituted tetrahydropyridazino[4,5-b]quinoline-dione and use thereof for treatment of pain)  
 RN 406933-27-5 CA  
 CN Pyridazino[4,5-b]quinoline-1,4-dione, 7-chloro-2,3-dihydro-10-hydroxy-2-[(1-(2-pyridinyl)ethyl)-, monomethanesulfonate (salt) (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 406933-26-4  
 CMF C18 H13 Cl N4 O3



CM 2  
 CRN 75-75-2  
 CMF C H4 O3 S



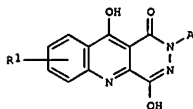
IT 406933-27-5P 406933-60-6P 406933-61-7P  
 406933-62-8P 406933-63-9P 406933-64-0P  
 406933-65-1P 406933-66-2P 406933-67-3P  
 406933-68-4P 406933-69-5P 406933-70-8P  
 406933-71-9P 406933-72-0P 406933-73-1P  
 406947-85-1P  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU

L9 ANSWER 3 OF 25 CA COPYRIGHT 2005 ACS on STN (Continued)  
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (drug; synthesis of a substituted tetrahydropyridazino[4,5-b]quinoline-dione and use thereof for treatment of pain)  
 IT 147494-01-7P, Dimethyl 7-chloro-4-hydroxyquinoline-2,3-dicarboxylate 170143-35-8P, 3-Carbomethoxy-7-chloro-4-hydroxyquinoline-2-carboxylic acid 179543-91-0P 179543-97-6P 406933-25-3P 406933-79-7P 406933-80-0P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (intermediate; synthesis of a substituted tetrahydropyridazino[4,5-b]quinoline-dione and use thereof for treatment of pain)  
 REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
 FORMAT

L9 ANSWER 4 OF 25 CA COPYRIGHT 2005 ACS ON STN  
 136:294840 CA  
 TITLE: Preparation of NMDA receptor glycine site-inhibiting 1,2,5,10-tetrahydropyridazino[4,5-b]quinoline-1,10-diones and their use for the treatment of pain  
 INVENTOR(S): Murphy, Megan; Xiao, Wenhua; Brown, Dean Gordon; Urbanek, Rebecca Ann; McLaren, Frances Marie; Vacek, Edward; Bare, Thomas; Horschler, Carey Lynn; Barlaam, Christine; Steelman, Gary Banks; Alford, Vernon  
 PATENT ASSIGNEE(S): AstraZeneca AB, Swed.  
 SOURCE: PCT Int. Appl., 29 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE       |
|---|------|----------|-----------------|------------|
| WO 2002026738   | A1   | 20020404 | WO 2001-SE2123  | 20010928   |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |      |          |                 |            |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  |      |          |                 |            |
| AU 2001092498   | A5   | 20020408 | AU 2001-92498   | 20010928   |
| EP 1325002  | A1   | 20030709 | EP 2001-972860  | 20010928   |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR   |      |          |                 |            |
| JP 2004509962   | T2   | 20040402 | JP 2002-531122  | 20010928   |
| US 2004058927   | A1   | 20040325 | US 2003-381915  | 20031009   |
| US 6833368  | B2   | 20041221 |                 |            |
| PRIORITY APPLN. INFO.:  |      |          | US 2000-236629P | P 20000929 |
|   |      |          | WO 2001-SE2123  | W 20010928 |

OTHER SOURCE(S): MARPAT 136:294840  
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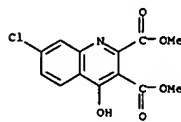
AB The title compds. (I; A = heterocyclyl; R1 = halogen), useful as NMDA

L9 ANSWER 5 OF 25 CA COPYRIGHT 2005 ACS ON STN  
 136:279463 CA  
 TITLE: Synthesis and use of tetrahydropyridazino[4,5-b]quinoline-diones and their use for the treatment of pain  
 INVENTOR(S): Murphy, Megan; Xiao, Wenhua; Brown, Dean Gordon; Urbanek, Rebecca Ann; McLaren, Frances Marie; Vacek, Edward; Bare, Thomas; Horschler, Carey Lynn; Barlaam, Christine; Steelman, Gary Banks; Alford, Vernon  
 PATENT ASSIGNEE(S): AstraZeneca AB, Swed.  
 SOURCE: PCT Int. Appl., 33 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE       |
|---|------|----------|-----------------|------------|
| WO 2002026739   | A1   | 20020404 | WO 2001-SE2124  | 20010928   |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |      |          |                 |            |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  |      |          |                 |            |
| AU 2002014441   | A5   | 20020408 | AU 2002-14441   | 20010928   |
| EP 1325005  | A1   | 20030709 | EP 2001-982984  | 20010928   |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR   |      |          |                 |            |
| JP 2004509963   | T2   | 20040402 | JP 2002-531123  | 20010928   |
| US 2005070544   | A1   | 20050331 | US 2003-381914  | 20031009   |
| PRIORITY APPLN. INFO.:  |      |          | US 2000-236754P | P 20000929 |
|   |      |          | WO 2001-SE2124  | W 20010928 |

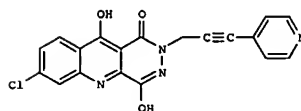
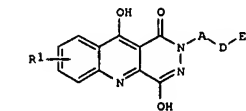
OTHER SOURCE(S): MARPAT 136:279463  
 GI

L9 ANSWER 4 OF 25 CA COPYRIGHT 2005 ACS ON STN (Continued)  
 receptor glycine site-inhibitors for the treatment of pain, are prep.  
 and analgesic I-contg. formulations claimed. Thus, 7-chloro-4-hydroxy-2-(2H,3H,4H-benzo[e]thian-4-yl)-1,2,5,10-tetrahydropyridazino[4,5-b]quinoline-1,10-dione (m.p. >300°), prep. from 2H,3H-benzo[e]thian-4-one in 8 steps, demonstrated a Ki of 411 nM in a human brain membrane assay.  
 IT 147494-01-7P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (in the preparation of NMDA receptor glycine site-inhibiting 1,2,5,10-tetrahydropyridazino[4,5-b]quinoline-1,10-diones and their use for the treatment of pain)  
 RN 147494-01-7 CA  
 CN 2,3-Quinolinedicarboxylic acid, 7-chloro-4-hydroxy-, dimethyl ester (9CI) (CA INDEX NAME)



IT 147494-01-7P 170143-35-8P 179543-97-6P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (in the preparation of NMDA receptor glycine site-inhibiting 1,2,5,10-tetrahydropyridazino[4,5-b]quinoline-1,10-diones and their use for the treatment of pain)  
 IT 406938-62-3P 406938-64-5P 406938-67-8P  
 406938-69-0P  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of NMDA receptor glycine site-inhibiting 1,2,5,10-tetrahydropyridazino[4,5-b]quinoline-1,10-diones and their use for the treatment of pain)  
 REFERENCE COUNT: 7  
 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
 FORMAT

L9 ANSWER 5 OF 25 CA COPYRIGHT 2005 ACS ON STN (Continued)

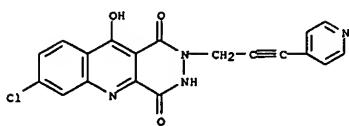


AB Title compds. I (R1 = halo; A = (CH2)nC.tplbond.C; n = 1-3; D = (hetero)aryl; E = H, halo, or a tautomer or with one exception) were prepared. Six synthetic examples were provided. For instance, propargyl bromide was used to alkylate tert-Bu carbazate and the resulting amide condensed with 7-chloro-4-oxo-2-(pyrrolidinyl)carbonylhydroquinoline-3-carboxylic acid to give the corresponding derivative. This propargyl sidechain was elaborated by coupling to 4-iodopyridine and the resulting intermediate treated with methanesulfonic acid to give II, isolated as the methanesulfonate salt. Example compds. gave a range of Ki = 14 to 106 nM for the NMDA glycine receptor; II had Ki = 67.6 nM. I are useful for the treatment of pain.  
 IT 406692-47-5P  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (drug; synthesis and use of tetrahydropyridazino[4,5-b]quinoline-diones and use for treatment of pain)  
 RN 406692-47-5 CA  
 CN Pyridazino[4,5-b]quinoline-1,4-dione, 7-chloro-2,3-dihydro-10-hydroxy-2-[3-(4-pyridinyl)-2-propynyl]-, methanesulfonate (10:13) (salt) (9CI) (CA INDEX NAME)

CH 1  
 CRN 406692-46-4  
 CMF C19 H11 Cl N4 O3

10/715,846

L9 ANSWER 5 OF 25 CA COPYRIGHT 2005 ACS on STN (Continued)



CM 2

CRN 75-75-2  
CMF C H4 O3 S

IT 406692-47-5P 406692-48-6P 406692-50-0P  
406692-52-2P 406692-54-4P 406692-57-7P  
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(drug; synthesis and use of tetrahydropyridazino[4,5-b]quinoline-diones and use for treatment of pain)  
IT 147494-01-7P 170143-35-8P 179543-91-0P  
179543-97-6P 406693-20-3P 406693-21-4P  
406693-22-5P 406693-24-7P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(intermediate; synthesis and use of tetrahydropyridazino[4,5-b]quinoline-diones and use for treatment of pain)  
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
FORMAT

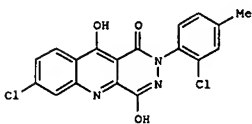
L9 ANSWER 6 OF 25 CA COPYRIGHT 2005 ACS on STN

135:92645 CA  
ACCESSION NUMBER: Preparation of 7-chloro-4-hydroxy-2-(2-chloro-4-methylphenyl)-1,2,5,10-tetrahydropyridazino[4,5-b]quinoline-1,10-dione for the treatment of pain  
Bare, Thomas Michael; Brown, Dean Gordon; Murphy, Megan; Urbaneck, Rebecca Ann; Xiao, Wenhua  
Astrazeneca AB, Swed.  
PCT Int. Appl., 21 pp.  
CODEN: PIXXD2  
Patent  
DOCUMENT TYPE: English  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 7  
PATENT INFORMATION:

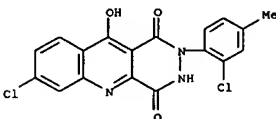
| PATENT NO.  | KIND | DATE      | APPLICATION NO. | DATE        |
|---|------|-----------|-----------------|-------------|
| WO 2001047927   | A1   | 20010705  | WO 2000-SE2611  | 20001219    |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |      |           |                 |             |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  |      |           |                 |             |
| CA 2394888  | AA   | 20010705  | CA 2000-2394888 | 20001219    |
| BR 2000016654   | A    | 200020903 | BR 2000-16654   | 20001219    |
| EP 1244662  | A1   | 20021002  | EP 2000-987935  | 20001219    |
| EP 1244662  | B1   | 20050427  |                 |             |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR   |      |           |                 |             |
| JP 2003519149   | T2   | 20030617  | JP 2001-549397  | 20001219    |
| NZ 519390   | A    | 20030725  | NZ 2000-519390  | 20001219    |
| EE 200200350  | A    | 20031015  | EE 2002-350     | 20001219    |
| RU 2234507  | C2   | 20040820  | RU 2002-115270  | 20001219    |
| AU 779703   | B2   | 20050210  | AU 2001-24203   | 20001219    |
| AU 2001024203   | A5   | 20010709  |                 |             |
| AT 294177   | E    | 20050515  | AT 2000-987935  | 20001219    |
| ZA 2002004779   | A    | 20030915  | ZA 2002-4779    | 20020613    |
| ZA 2002004781   | A    | 20030915  | ZA 2002-4781    | 20020613    |
| BG 106831   | A    | 20030331  | BG 2002-106831  | 20020618    |
| NO 2002002984   | A    | 20020820  | NO 2002-2984    | 20020620    |
| US 2003149042   | A1   | 20030807  | US 2003-168760  | 20030121    |
| US 6787547  | B2   | 20040907  |                 |             |
| US 2005101603   | A1   | 20050512  | US 2004-934753  | 20040903    |
| US 6943165  | B2   | 20050913  |                 |             |
| PRIORITY APPLN. INFO.:  |      |           |                 |             |
|   |      |           | US 1999-171906P | P 19991223  |
|   |      |           | US 2000-236783P | P 20000929  |
|   |      |           | WO 2000-SE2611  | W 20001219  |
|   |      |           | US 2003-168760  | A1 20030121 |

L9 ANSWER 6 OF 25 CA COPYRIGHT 2005 ACS on STN (Continued)

GI  
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
FORMAT



AB A detailed, multi-step synthesis of the title compound I (and its choline salt) which showed Ki of 56 nM and of 50 nM against NMDA glycine site binding in rat brain and in human brain, resp., was given.  
IT 348630-10-4P  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of 7-chloro-4-hydroxy-2-(2-chloro-4-methylphenyl)-1,2,5,10-tetrahydropyridazino[4,5-b]quinoline-1,10-dione for the treatment of pain)  
RN 348630-10-4 CA  
CN Pyridazino[4,5-b]quinoline-1,4-dione, 7-chloro-2-(2-chloro-4-methylphenyl)-2,3-dihydro-10-hydroxy- (9CI) (CA INDEX NAME)

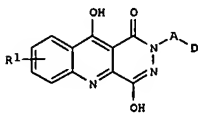


IT 348630-10-4P 348630-12-6P  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of 7-chloro-4-hydroxy-2-(2-chloro-4-methylphenyl)-1,2,5,10-tetrahydropyridazino[4,5-b]quinoline-1,10-dione for the treatment of pain)  
IT 147494-01-7P 170143-35-8P 179543-91-0P  
179543-97-6P 348630-14-8P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of 7-chloro-4-hydroxy-2-(2-chloro-4-methylphenyl)-1,2,5,10-

L9 ANSWER 7 OF 25 CA COPYRIGHT 2005 ACS on STN  
 135:92643 CA  
 TITLE: Preparation of 1,2,5,10-tetrahydropyridazino[4,5-b]quinoline-1,10-diones for the treatment of pain  
 INVENTOR(S): Murphy, Megan; Urbaneck, Rebecca Ann; Xiao, Wenhua; Steelman, Gary Banks; Brown, Dean Gordon; Bare, Thomas  
 PATENT ASSIGNEE(S): AstraZeneca Ab, Swed.  
 SOURCE: PCT Int. Appl., 31 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 7  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE       |
|---|------|----------|-----------------|------------|
| WO 2001047925   | A1   | 20010705 | WO 2000-SE2609  | 20001219   |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |      |          |                 |            |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, CA, GN, GW, ML, MR, NE, SN, TD, TG  |      |          |                 |            |
| AU 2001025662   | A5   | 20010709 | AU 2001-25662   | 20001219   |
| EP 1244664  | A1   | 20021002 | EP 2000-989117  | 20001219   |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR   |      |          |                 |            |
| JP 2003519147   | T2   | 20030617 | JP 2001-549395  | 20001219   |
| ZA 2002004779   | A    | 20030915 | ZA 2002-4779    | 20020613   |
| ZA 2002004781   | A    | 20030915 | ZA 2002-4781    | 20020613   |
| US 2003153572   | A1   | 20030814 | US 2003-168762  | 20030212   |
| US 6730675  | B2   | 20040504 |                 |            |
| PRIORITY APPLN. INFO.:  |      |          | US 1999-171906P | P 19991223 |
|   |      |          | US 2000-236786P | P 20000929 |
|   |      |          | WO 2000-SE2609  | W 20001219 |

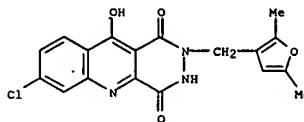
OTHER SOURCE(S): MARPAT 135:92643  
 GI



L9 ANSWER 7 OF 25 CA COPYRIGHT 2005 ACS on STN (Continued)

L9 ANSWER 7 OF 25 CA COPYRIGHT 2005 ACS on STN (Continued)

AB The title compds. {I; R1 = halo; A = (CH2)n (n = 1-4); D = (un)substituted 5-membered heteroaryl or its benz- derivative}, useful for treating pain, were prepared E.g., a multi-step synthesis of I [R1 = 7-Cl; A = CH2; D = 2,5-dimethylfuran-3-yl] which showed Ki of 24.8 nM in test for binding to NMDA receptor glycine site, was given.  
 IT 348088-73-3P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of 1,2,5,10-tetrahydropyridazino[4,5-b]quinoline-1,10-diones for the treatment of pain)  
 RN 348088-73-3 CA  
 CN Pyridazino[4,5-b]quinoline-1,4-dione, 7-chloro-2-[(2,5-dimethyl-furanyl)methyl]-2,3-dihydro-10-hydroxy- (9CI) (CA INDEX NAME)

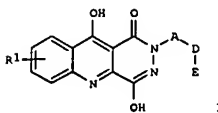


IT 348088-73-3P 348088-74-4P 348088-75-5P  
 348088-76-6P 348088-77-7P 348088-78-8P  
 348088-79-9P 348088-80-2P 348088-81-3P  
 348088-82-4P 348088-83-5P 348088-84-6P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of 1,2,5,10-tetrahydropyridazino[4,5-b]quinoline-1,10-diones for the treatment of pain)  
 IT 147494-01-7P 170143-35-8P 179543-91-0P  
 179543-97-6P 348088-87-9P 348088-89-1P  
 348088-90-4P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation of 1,2,5,10-tetrahydropyridazino[4,5-b]quinoline-1,10-diones for the treatment of pain)  
 REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
 FORMAT

L9 ANSWER 8 OF 25 CA COPYRIGHT 2005 ACS on STN  
 135:92642 CA  
 TITLE: Preparation of 1,2,5,10-tetrahydropyridazino[4,5-b]quinoline-1,10-diones for the treatment of pain  
 INVENTOR(S): Urbaneck, Rebecca Ann; Bare, Thomas Michael; Brown, Dean Gordon; Xiao, Wenhua; Steelman, Gary Banks; Murphy, Megan; Horchler, Carey Lynn  
 PATENT ASSIGNEE(S): AstraZeneca Ab, Swed.  
 SOURCE: PCT Int. Appl., 57 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 7  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE       |
|---|------|----------|-----------------|------------|
| WO 2001047924   | A1   | 20010705 | WO 2000-SE2607  | 20001219   |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |      |          |                 |            |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, CA, GN, GW, ML, MR, NE, SN, TD, TG  |      |          |                 |            |
| AU 2001024200   | A5   | 20010709 | AU 2001-24200   | 20001219   |
| EP 1244660  | A1   | 20021002 | EP 2000-987932  | 20001219   |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR   |      |          |                 |            |
| JP 2003519146   | T2   | 20030617 | JP 2001-549394  | 20001219   |
| ZA 2002004779   | A    | 20030915 | ZA 2002-4779    | 20020613   |
| ZA 2002004781   | A    | 20030915 | ZA 2002-4781    | 20020613   |
| US 2003181449   | A1   | 20030925 | US 2003-168761  | 20030224   |
| PRIORITY APPLN. INFO.:  |      |          | US 1999-171906P | P 19991223 |
|   |      |          | US 2000-236881P | P 20000929 |
|   |      |          | WO 2000-SE2607  | W 20001219 |

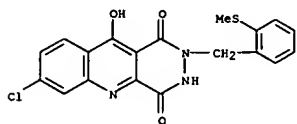
OTHER SOURCE(S): MARPAT 135:92642  
 GI



AB The title compds. {I; R1 = halo; A = (CH2)n (n = 0-4); DE = (un)substituted Ph}, useful for the treatment of pain, were prepared E.g., a multi-step synthesis of I [R1 = 7-Cl; A = a bond; n = 0; DE =

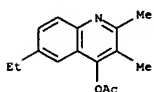
10/715,846

L9 ANSWER 8 OF 25 CA COPYRIGHT 2005 ACS on STN (Continued)  
 2,4,6-Me3C6H2] which showed a Ki of 39.9 nM in the test for binding to  
 the  
 the NMDA receptor glycine site, was given.  
 IT 349104-99-0P  
 RL: BAC (Biological activity or effector, except adverse); BSU  
 (Biological  
 study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);  
 BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of  
 1,2,5,10-tetrahydropyridazino[4,5-b]quinoline-1,10-diones  
 for the treatment of pain)  
 RN 349104-99-0 CA  
 CN Pyridazino[4,5-b]quinoline-1,4-dione, 7-chloro-2,3-dihydro-10-hydroxy-2-  
 [(2-(methylthio)phenyl)methyl]- (9CI) (CA INDEX NAME)



IT 349104-99-0P  
 RL: BAC (Biological activity or effector, except adverse); BSU  
 (Biological  
 study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);  
 BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of  
 1,2,5,10-tetrahydropyridazino[4,5-b]quinoline-1,10-diones  
 for the treatment of pain)  
 IT 349106-01-0 349106-02-1  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation of  
 1,2,5,10-tetrahydropyridazino[4,5-b]quinoline-1,10-diones  
 for the treatment of pain)  
 IT 147494-01-7P 170143-35-8P 179543-97-6P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (preparation of  
 1,2,5,10-tetrahydropyridazino[4,5-b]quinoline-1,10-diones  
 for the treatment of pain)  
 IT 349106-04-3P  
 RL: BYP (Byproduct); PREP (Preparation)  
 (sulfoxide byproduct in the preparation of a 1,2,5,10-  
 tetrahydropyridazino[4,5-b]quinoline-1,10-dione derivative for the  
 treatment of pain)  
 REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE  
 FORMAT

L9 ANSWER 9 OF 25 CA COPYRIGHT 2005 ACS on STN (Continued)  
 preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (prepn. of quinolinol derivs. as agrochem. bactericides and  
 fungicides)  
 RN 133767-08-5 CA  
 CN 4-Quinololinol, 6-ethyl-2,3-dimethyl-, acetate (ester) (9CI) (CA INDEX  
 NAME)

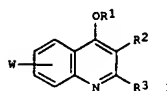


IT 133767-08-5P 133767-10-9P 217074-11-8P  
 217074-15-2P 217074-18-5P 217074-20-9P  
 217074-26-5P 217074-28-7P 217074-30-1P  
 217074-32-3P 217074-36-7P 217074-39-0P  
 217074-40-3P 217074-42-5P 217074-43-6P  
 217074-50-5P 217074-52-7P 217074-54-9P  
 217074-55-0P 217074-56-1P 217074-59-4P  
 217074-61-8P 217074-63-0P 217074-64-1P  
 217074-67-4P 217074-70-9P 217074-73-2P  
 217074-74-3P 217074-78-7P 217074-81-2P  
 217074-85-6P 217074-89-0P 217074-93-6P  
 217075-15-5P 217075-18-8P  
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except  
 adverse); BSU (Biological study, unclassified); SPN (Synthetic  
 preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of quinolinol derivs. as agrochem. bactericides and  
 fungicides)  
 IT 217075-05-3 217075-08-6 217075-11-1  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation of quinolinol derivs. as agrochem. bactericides and  
 fungicides)  
 IT 217074-94-7P 217074-95-8P 217074-97-0P  
 217074-99-2P 217075-00-8P 217075-02-0P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (preparation of quinolinol derivs. as agrochem. bactericides and  
 fungicides)  
 REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE  
 FORMAT

L9 ANSWER 9 OF 25 CA COPYRIGHT 2005 ACS on STN  
 130:52344 CA  
 ACCESSION NUMBER: 130:52344 CA  
 TITLE: Preparation of quinolinol derivatives as agrochemical  
 bactericides and fungicides  
 INVENTOR(S): Yamamoto, Kazumi; Teraoka, Takeshi; Iwata, Michiaki;  
 Imamura, Keiichi; Kurihara, Hiroshi; Sasaki, Norio;  
 Usui, Yoshihiro; Sawai, Nobumitsu  
 PATENT ASSIGNEE(S): Rhone-Poulenc Yuka Agro Co., Ltd., Japan; Meiji Seika  
 Kaisha Ltd.  
 SOURCE: PCT Int. Appl., 75 pp.  
 CODEN: PIXKD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.   | KIND | DATE     | APPLICATION NO.  | DATE        |
|--|------|----------|------------------|-------------|
| WO 9855460   | A1   | 19981210 | WO 1998-JP2434   | 19980602    |
| W: CN, ID, JP, KR, US, VN  |      |          |                  |             |
| RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE |      |          |                  |             |
| TW 521072  | B    | 20030221 | TW 1998-87108526 | 19980601    |
| EP 990648  | A1   | 20000405 | EP 1998-923085   | 19980602    |
| R: CH, DE, FR, GB, IT, LI  |      |          |                  |             |
| US 2003119863  | A1   | 20030626 | US 2000-424257   | 20000321    |
| US 6680282   | B2   | 20040120 | US 2003-715846   | 20031119    |
| US 2004152728  | A1   | 20040805 | JP 1997-144266   | A 19970602  |
| PRIORITY APPLN. INFO.:   |      |          | WO 1998-JP2434   | W 19980602  |
|  |      |          | US 2000-424257   | A1 20000321 |

OTHER SOURCE(S): MARPAT 130:52344  
 GI



AB The title compds. I [R1 = H, etc.; R2 = (un)substituted alkyl; R3 =  
 (un)substituted alkyl, alkenyl, etc.; further details on R2 and R3 are  
 given; W indicates one to 4 substituents such as halo, (un)substituted  
 alkyl, etc.] are prepared The title compound I [R1 = MeCO; R2 = R3 =  
 Me; W =  
 6-Et] at 100 ppm gave ≥ 80% control of Pyricularia oryzae.  
 IT 133767-08-5P  
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except  
 adverse); BSU (Biological study, unclassified); SPN (Synthetic

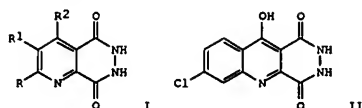
L9 ANSWER 10 OF 25 CA COPYRIGHT 2005 ACS on STN  
 119:8821 CA  
 ACCESSION NUMBER: 119:8821 CA  
 TITLE: Pyridazinediones and their use in the treatment of  
 neurological disorders  
 INVENTOR(S): Bare, Thomas Michael; Sparks, Richard Bruce  
 PATENT ASSIGNEE(S): Imperial Chemical Industries PLC, UK  
 SOURCE: Eur. Pat. Appl., 64 pp.  
 CODEN: EPXKDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE        |
|---|------|----------|-----------------|-------------|
| EP 516297   | A1   | 19921202 | EP 1992-304084  | 19920506    |
| EP 516297   | B1   | 19961030 |                 |             |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, PT, SE |      |          |                 |             |
| ZA 9202998  | A    | 19930224 | ZA 1992-2998    | 19920424    |
| AU 9215213  | A1   | 19921122 | AU 1992-15213   | 19920428    |
| AU 642086   | B2   | 19931007 |                 |             |
| CA 2067537  | AA   | 19921110 | CA 1992-2067537 | 19920429    |
| HU 61302  | A2   | 19921228 | HU 1992-1486    | 19920504    |
| AT 144707   | E    | 19961115 | AT 1992-304084  | 19920506    |
| ES 2093782  | T3   | 19970101 | ES 1992-304084  | 19920506    |
| SK 280336   | B6   | 19991210 | SK 1992-1396    | 19920507    |
| CZ 286814   | B6   | 20000712 | CZ 1992-1396    | 19920507    |
| NO 9201841  | A    | 19921110 | NO 1992-1841    | 19920508    |
| NO 180619   | B    | 19970210 |                 |             |
| NO 180619   | C    | 19970521 |                 |             |
| FI 102754   | B1   | 19990215 | FI 1992-2099    | 19920508    |
| KR 231095   | B1   | 19991115 | KR 1992-7938    | 19920508    |
| JP 05140162   | A2   | 19930608 | JP 1992-117285  | 19920511    |
| JP 3278633  | B2   | 20020430 |                 |             |
| US 5604227  | A    | 19970218 | US 1995-421133  | 19950413    |
| US 5599814  | A    | 19970204 | US 1995-427469  | 19950424    |
| US 5733910  | A    | 19980331 | US 1996-689259  | 19960805    |
| US 5739133  | A    | 19980414 | US 1996-700654  | 19960815    |
| PRIORITY APPLN. INFO.:  |      |          | GB 1991-9973    | A 19910509  |
|   |      |          | GB 1992-2991    | A 19920213  |
|   |      |          | CS 1992-1396    | A 19920507  |
|   |      |          | US 1992-880966  | B1 19920508 |
|   |      |          | US 1993-156211  | B1 19931122 |
|   |      |          | US 1993-156659  | B1 19931122 |
|   |      |          | US 1995-421133  | A1 19950413 |
|   |      |          | US 1995-427469  | A1 19950424 |

OTHER SOURCE(S): MARPAT 119:8821  
 GI



L9 ANSWER 10 OF 25 CA COPYRIGHT 2005 ACS on STN (Continued)



AB Title compds. I (RR1 = atoms required to complete an (un)substituted benzene, pyridine, or thiophene ring; R2 = H, NH2, NHH2, OH, SH) and their mono-, di-, or triacylated derivs. are useful in treating neurodegenerative disorders. 4,2-Cl(H2N)C6H3CO2Me was cyclized with MeO2CC.tplbond.CCO2Me to give 28.9% di-Me

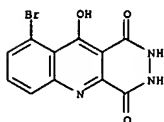
7-chloro-4-hydroxyquinoline-2,3-dicarboxylate which was treated with N2H4 to give 90% pyridazinoquinolinedione II. II had an ED50 of 2.1 µM for inhibiting glutamate-induced contractions of isolated guinea pig ileum.

IT 147493-77-4P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and acetylation of)

RN 147493-77-4 CA

CN Pyridazino[4,5-b]quinoline-1,4-dione, 9-bromo-2,3-dihydro-10-hydroxy- (9CI) (CA INDEX NAME)



IT 147493-77-4P 147493-78-5P 147493-79-6P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and acetylation of)

IT 147494-51-7P 147494-58-4P 148133-10-2P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and cyclization of)

IT 147493-53-6P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and glycinergic antagonist activity of)

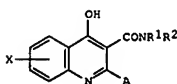
IT 147493-58-1P 147493-60-5P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and hydrolysis of)

L9 ANSWER 11 OF 25 CA COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 112:55850 CA  
TITLE: N-thiazolylquinolinecarboxamides and analogs as analgesics and antiinflammatory agents, their preparation, and formulations containing them  
INVENTOR(S): Clemence, Francois; Le Martret, Odile; Delevallee, Françoise  
PATENT ASSIGNEE(S): Roussel-UCLAF, Fr.  
SOURCE: U.S., 14 pp. Cont.-in-part of U.S. Ser. No. 831,356, abandoned.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 5  
PATENT INFORMATION:

| PATENT NO.            | KIND | DATE     | APPLICATION NO. | DATE        |
|-----------------------|------|----------|-----------------|-------------|
| US 4845105            | A    | 19890704 | US 1987-30680   | 19870324    |
| FR 2572404            | A2   | 19860502 | FR 1984-16573   | 19841030    |
| FR 2572404            | B2   | 19871211 |                 |             |
| FR 2585356            | A1   | 19870130 | FR 1985-11389   | 19850725    |
| FR 2585356            | B1   | 19871023 |                 |             |
| US 4735951            | A    | 19880405 | US 1985-790064  | 19851022    |
| US 4988708            | A    | 19910129 | US 1988-183911  | 19880420    |
| PRIORITY APPL. INFO.: |      |          | FR 1984-16573   | A 19841030  |
|                       |      |          | FR 1985-11389   | A 19850725  |
|                       |      |          | US 1985-790064  | A2 19851022 |
|                       |      |          | US 1986-831356  | A2 19860220 |
|                       |      |          | US 1986-890081  | A1 19860724 |
|                       |      |          | FR 1982-9654    | 19820603    |
|                       |      |          | US 1987-30680   | A2 19870324 |

OTHER SOURCE(S): MARPAT 112:55850  
GI



AB The title compds. I (X = H, halo, C1-5 alkyl, etc., in the 5-, 6-, 7-, or 8-position; R1 = H, C1-4 alkyl; R2 = thiazolyl, 4,5-dihydrothiazolyl, pyridinyl, oxazolyl, etc.; A = CR3R4OCOR5, etc.; R3, R4 = H, C1-4 alkyl, aryl; R5 = Ph, naphthyl, etc.), useful as analgesics and antiinflammatory agents, were prepared. A mixture of 4-hydroxy-2-(1-propenyl)-N-(2-thiazolyl)-8-trifluoromethyl-3-quinolinecarboxamide, methylbenzyl ammonium chloride, and MeNO4 in CH2Cl2 was stirred at 0° for 1 h to give

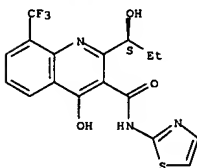
L9 ANSWER 10 OF 25 CA COPYRIGHT 2005 ACS on STN (Continued)

IT 147493-64-8P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and inolacetylation of)  
IT 147494-01-7P 147494-02-8P 147494-03-9P  
147494-05-1P 147494-06-2P 147494-07-3P  
147494-09-5P 147494-10-8P 147494-11-9P  
147494-15-3P 147494-16-4P 147494-17-5P  
147494-18-6P 147494-19-7P 147494-21-1P  
147494-23-3P 147494-28-6P 147494-33-5P  
147494-39-1P 147494-43-7P 147494-48-2P  
147494-49-3P 147494-50-6P 147494-55-1P  
147494-57-3P 147494-59-5P 147494-60-8P  
147494-67-5P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and reaction of, with hydrazine)  
IT 147493-45-6P 147493-47-8P 147493-48-9P  
147493-49-0P 147493-50-3P 147493-51-4P  
147493-52-5P 147493-56-8P 147493-57-0P  
147493-59-2P 147493-61-6P 147493-62-7P  
147493-63-8P 147493-65-0P 147493-66-1P  
147493-67-2P 147493-68-3P 147493-69-4P  
147493-70-7P 147493-71-8P 147493-72-9P  
147493-73-0P 147493-74-1P 147493-75-2P  
147493-76-3P 147493-82-1P 147493-83-2P  
147493-84-3P 147493-85-4P 147493-86-5P  
147493-87-6P 147493-88-7P 147493-89-8P  
147493-90-1P 147493-91-2P 147493-92-3P  
147493-93-4P 147493-94-5P 147493-95-6P  
147493-96-7P 147493-98-9P 147494-72-2P  
147494-73-3P 147494-74-4P 147494-75-5P  
148133-01-1P 148133-02-2P 148133-03-3P  
148133-04-4P 148133-05-5P 148133-06-6P  
148133-07-7P 148133-08-8P 148133-09-9P  
148159-90-4P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
IT 147493-44-5P 147493-46-7P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation, acylation, and glycinergic antagonist activity of)

L9 ANSWER 11 OF 25 CA COPYRIGHT 2005 ACS on STN (Continued)

2-(1,2-dihydroxypropyl)-4-hydroxy-N-(2-thiazolyl)-8-trifluoromethyl-3-quinolinecarboxamide (II). In a chronic arthritis test using rats, II exhibited an oral ED50 of 3 mg/kg. Tablet formulations contg I were given.  
IT 114419-81-7P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and reaction of, in preparation of analgesic and antiinflammatory)  
RN 114419-81-7 CA  
CN 3-Quinolinecarboxamide, 4-hydroxy-2-(1-hydroxypropyl)-N-2-thiazolyl-8-(trifluoromethyl)-, (S)- (9CI) (CA INDEX NAME)

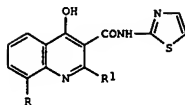
Absolute stereochemistry.



IT 114419-81-7P 124823-12-7P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and reaction of, in preparation of analgesic and antiinflammatory)  
IT 98009-95-1P 112905-09-6P 112905-10-9P  
112905-13-2P 114351-55-2P 114351-56-3P  
114419-80-6P 124823-06-9P 124823-07-0P  
124823-08-1P 124823-10-5P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and reaction of, in preparation of analgesic and antiinflammatory agent)  
IT 105488-41-3P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of, as analgesic and antiinflammatory)  
IT 105488-39-9P 105488-40-2P 105504-93-6P  
112905-04-1P 112905-05-2P 112905-06-3P  
114351-01-8P 114351-02-9P 124822-90-8P  
124822-91-9P 124822-92-0P 124822-93-1P  
124822-95-3P 124822-96-4P 124822-97-5P  
124822-98-6P 124822-99-7P 124823-00-3P  
124823-01-4P 124823-02-5P 124857-48-3P  
124857-49-4P 124857-50-7P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of, as analgesic and antiinflammatory agent)  
IT 89441-23-6  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, in preparation of analgesic and antiinflammatory)

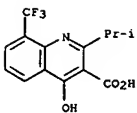
L9 ANSWER 11 OF 25 CA COPYRIGHT 2005 ACS on STN (Continued)  
 IT 89441-23-6 89441-40-7  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, in preparation of analgesic and antiinflammatory agent)

L9 ANSWER 12 OF 25 CA COPYRIGHT 2005 ACS on STN  
 109:22828 CA  
 ACCESSION NUMBER:  
 TITLE: 4-Hydroxy-3-quinolinecarboxamides with antiarthritic and analgesic activities  
 AUTHOR(S): Clemence, Francois; Le Martret, Odile; Delevallee, Françoise; Benzioni, Josette; Jouanen, Alain; Jouquey, Simone; Mouren, Michel; Deraedt, Roger  
 CORPORATE SOURCE: Cent. Rech., ROUSSEL-UCLAF, Romainville, 93230, Fr.  
 SOURCE: Journal of Medicinal Chemistry (1988), 31(7), 1453-62  
 CODEN: JMCMAH; ISSN: 0022-2623  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 109:22828  
 GI



AB A series of 4-hydroxy-3-quinolinecarboxamides were synthesized and evaluated by the oral route as antiinflammatory agents in carrageenin-induced foot edema and adjuvant-induced arthritis and as analgesic agents in the ACOH induced writhing test. Thus, 4-hydroxy-8-methoxy-3-quinolinecarbonyl chloride reacted with 2-aminothiazole to give 64% the title compound I (R = MeO, R1 = H).  
 Some of the most active mols., possessed both analgesic and acute antiinflammatory activity, others, such as I (R = CF3; R1 = H, Me, CHCl2) were only powerful, peripherally acting analgesics. I (R = CF3, R1 = CHCl2), being active at 1 mg/kg (ED50), is the most potent compound in the series.  
 Some analogs, substituted in the 2-position by an alc., ester, or amine function, displayed potent antiarthritic activity in the same range as that of piroxicam and were also active in acute tests of inflammation and nociception. They inhibited the activity of both cyclooxygenase and 5-lipoxygenase at micromolar concns. I (R = CF3, R1 = EtCO2CH2) (RU 43526) showed potent antiarthritic activity (adjuvant-induced arthritis, ED50 = 0.7 mg/kg, po) and gastrointestinal tolerance (ED100 > 250 mg/kg, po) and thus it is presently undergoing an extensive pharmacol. evaluation.  
 IT 64321-75-1  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (amidation of, with aminothiazole)  
 RN 64321-75-1 CA  
 CN 3-Quinolinecarboxylic acid, 4-hydroxy-2-(1-methylethyl)-8-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L9 ANSWER 12 OF 25 CA COPYRIGHT 2005 ACS on STN (Continued)



IT 64321-75-1 64321-85-3 64321-90-0  
 64322-02-7 75999-45-0 75999-49-4  
 75999-91-8 114351-52-9  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (amidation of, with aminothiazole)  
 IT 75999-37-0 80777-17-9  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (amidation of, with heterocyclic amines)  
 IT 64321-66-0 64321-70-6 64321-80-8  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (amidation of, with heterocyclic imines)  
 IT 114351-55-2P 114351-56-3P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and aminolysis of)  
 IT 64321-76-2P 64321-81-9P 64321-91-1P  
 114350-76-4P 114350-78-6P 114350-79-7P  
 114350-80-0P 114351-01-8P 114351-02-9P  
 114419-80-6P 114419-81-7P 124822-98-6P  
 124822-99-7P 124823-00-3P 124823-01-4P  
 124823-02-5P 124857-49-4P 124857-50-7P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (preparation and analgesic activity of)  
 IT 64321-64-8P 64321-71-7P 64321-86-4P  
 64322-03-8P 75999-36-9P 75999-38-1P  
 75999-39-2P 75999-40-5P 75999-41-6P  
 75999-44-9P 75999-46-1P 75999-50-7P  
 80777-20-4P 80777-22-6P 80777-24-8P  
 80777-28-2P 80777-32-8P 80777-33-9P  
 80777-34-0P 80777-44-2P 80783-80-8P  
 89441-10-1P 89441-31-6P 89441-32-7P  
 89441-33-8P 89441-34-9P 89441-37-2P  
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 95632-11-4P 95632-12-5P 95632-13-6P  
 105100-52-5P 105100-54-7P 105100-56-9P  
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 105488-41-3P 105504-93-6P 114350-63-9P  
 114350-64-0P 114350-77-5P 114350-82-2P  
 114350-83-3P 114350-84-4P 114350-85-5P  
 114350-86-6P 114350-87-7P 114350-93-5P  
 114350-94-6P 114350-97-8P 114350-98-0P  
 114351-14-3P 114351-15-4P 124857-48-3P  
 RL: BAC (Biological activity or effector, except adverse); BSU

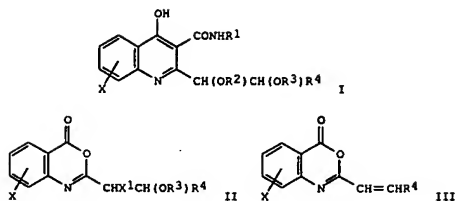
L9 ANSWER 12 OF 25 CA COPYRIGHT 2005 ACS on STN (Continued)  
 study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (prepn. and analgesic and antiinflammatory activity of)  
 IT 105100-51-4P 105100-53-6P 105100-55-8P  
 105100-57-0P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and deprotection of)  
 IT 89441-18-9P 89441-19-0P 89441-22-5P  
 98009-94-0P 114351-43-8P 114351-44-9P  
 124823-12-7P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and hydrolysis-ring cleavage of)  
 IT 124822-97-5P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 IT 89441-23-6P 98009-95-1P 124823-10-5P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation, esterification and hydrolysis-ring cleavage of)

L9 ANSWER 13 OF 25 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 108:94406 CA  
 TITLE: Preparation of quinolinecarboxamides as inflammation inhibitors  
 INVENTOR(S): Clemence, Francois; Le Martret, Odile; Delevallee, Françoise  
 PATENT ASSIGNEE(S): Roussel-UCLAF, Fr.  
 SOURCE: Fr. Demande, 17 pp.  
 CODEN: FRXXBL  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 5  
 PATENT INFORMATION:

| PATENT NO.                                    | KIND | DATE     | APPLICATION NO. | DATE        |
|---|------|----------|-----------------|-------------|
| FR 2585356                                    | A1   | 19870130 | FR 1985-11389   | 19850725    |
| FR 2585356                                    | B1   | 19871023 |                 |             |
| HU 43598                                      | A2   | 19871130 | HU 1986-2842    | 19860708    |
| HU 202526                                     | B    | 19910328 |                 |             |
| ZA 8605260                                    | A    | 19870930 | ZA 1986-5260    | 19860715    |
| JP 62029585                                   | A2   | 19870207 | JP 1986-170961  | 19860722    |
| JP 07010863                                   | B4   | 19950208 |                 |             |
| SU 1584749                                    | A3   | 19900807 | SU 1986-4027833 | 19860723    |
| DK 8603518                                    | A    | 19870126 | DK 1986-3518    | 19860724    |
| DK 172034                                     | B1   | 19970922 |                 |             |
| FI 8603040                                    | A    | 19870126 | FI 1986-3040    | 19860724    |
| FI 86426                                      | B    | 19920515 |                 |             |
| FI 86426                                      | C    | 19920825 |                 |             |
| AU 8660509                                    | A1   | 19870129 | AU 1986-60509   | 19860724    |
| AU 609377                                     | B2   | 19910502 |                 |             |
| EP 214004                                     | A2   | 19870311 | EP 1986-401661  | 19860724    |
| EP 214004                                     | A3   | 19890405 |                 |             |
| EP 214004                                     | B1   | 19930331 |                 |             |
| R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE |      |          |                 |             |
| ES 2000739                                    | A6   | 19880316 | ES 1986-554     | 19860724    |
| CA 1262903                                    | A1   | 19881114 | CA 1986-514629  | 19860724    |
| AT 87625                                      | E    | 19930415 | AT 1986-401661  | 19860724    |
| US 4845105                                    | A    | 19890704 | US 1987-30680   | 19870324    |
| US 4988708                                    | A    | 19910129 | US 1988-183911  | 19880420    |
| PRIORITY APPLN. INFO.:                        |      |          | FR 1984-16573   | A 19841030  |
|   |      |          | FR 1985-11389   | A 19850725  |
|   |      |          | US 1985-790064  | A2 19851022 |
|   |      |          | US 1986-831356  | A2 19860220 |
|   |      |          | EP 1986-401661  | A 19860724  |
|   |      |          | US 1986-890081  | A1 19860724 |
|   |      |          | US 1987-30680   | A2 19870324 |

OTHER SOURCE(S): CASREACT 108:94406  
 GI

L9 ANSWER 13 OF 25 CA COPYRIGHT 2005 ACS on STN (Continued)

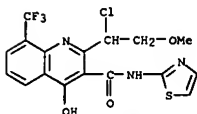


AB The title compds. I [X = H, halo, alkyl, alkoxy, CF3, SCF3, OCF3; R1 = (substituted) thiazolyl, 4,5-dihydrothiazolyl, oxazolyl, isoxazolyl, imidazolyl, tetrazolyl, etc.; R2, R3 = H, alkyl, aryl, COR5 (wherein R5 = alkyl, aryl); R4 = H, alkyl, aryl], useful as inflammation inhibitors, were prepared via reaction of benzoxazinones II (X = as given above; R4 = H, alkyl, aryl; R3 = alkyl, aryl; X1 = halo) with either MeCONHR1 (R1 = as given above) or ROCOCH2CONHR1 (R1 = as given above; R = alkyl) or reaction of benzoxazinones III (X, R4 = as given above) with MeCONHR1. Reaction of 2-acetylaminothiazole with 2-(1-chloro-2-methoxyethyl)-8-trifluoromethyl-4H-3,1-benzoxazin-4-one in the presence of BuLi gave 2-[(2-chloro-3-methoxy-1-oxopropyl)amino]-8-trifluoromethyl-3-(2-thiazolyl)-3-trifluoromethylbenzenepropanamide (IV). A mixture of 33.35 g IV and 10 g dimethylaminopyridine in 300 mL THF was refluxed for 30 min to give 28.2 g 2-(1-chloro-2-methoxyethyl)-4-hydroxy-N-(2-thiazolyl)-8-trifluoromethyl-3-quinolinecarboxamide (V). Treatment of V with tert-BuOK in dioxane, followed by hydrolysis of the resulting furo[3,4-b]quinoline derivative gave 4-hydroxy-2-(1-hydroxy-2-methoxyethyl)-N-(2-thiazolyl)-8-(trifluoromethyl)-3-quinolinecarboxamide (VI). At 2 mg/kg orally, VI inhibited Freund's adjuvant-induced inflammation in rats by 50%. Tablets containing 2-(1,2-dihydroxyethyl)-4-hydroxy-N-(2-thiazolyl)-8-trifluoromethyl-3-quinolinecarboxamide, lactose, talc, starch, and Mg stearate were prepared.

IT 112905-09-6P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and cyclization of)

RN 112905-09-6 CA

L9 ANSWER 13 OF 25 CA COPYRIGHT 2005 ACS on STN (Continued)  
 CN 3-Quinolinecarboxamide, 2-(1-chloro-2-methoxyethyl)-4-hydroxy-N-2-thiazolyl-8-(trifluoromethyl)- (9C1) (CA INDEX NAME)



IT 112905-09-6P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and cyclization of)

IT 112905-10-9P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and hydrolysis of)

IT 112905-13-2P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and hydroxylation of)

IT 112905-04-1P 112905-05-2P 112905-06-3P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of, as inflammation inhibitor)

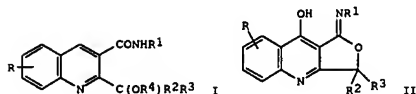
L9 ANSWER 14 OF 25 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 105:226393 CA  
 TITLE: Quinolinecarboxamides  
 INVENTOR(S): Clemence, Francois; Le Martret, Odile; Delevallee, Françoise  
 PATENT ASSIGNEE(S): Roussel-UCLAF, Fr.  
 SOURCE: Fr. Demande, 13 pp. Addn. to Fr. Demande Appl. No. 82 09654.  
 CODEN: FRXXBL  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 5  
 PATENT INFORMATION:

| PATENT NO.                                    | KIND | DATE     | APPLICATION NO. | DATE        |
|---|------|----------|-----------------|-------------|
| FR 2572404                                    | A2   | 19860502 | FR 1984-16573   | 19841030    |
| FR 2572404                                    | B2   | 19871211 |                 |             |
| FR 2530633                                    | A1   | 19840127 | FR 1982-9654    | 19820603    |
| FR 2530633                                    | B1   | 19841228 |                 |             |
| SE 8302474                                    | A    | 19831204 | SE 1983-2474    | 19830502    |
| SE 461041                                     | B    | 19891218 |                 |             |
| SE 461041                                     | C    | 19900412 |                 |             |
| US 4486438                                    | A    | 19841204 | US 1983-498832  | 19830527    |
| BE 896941                                     | A1   | 19831202 | BE 1983-210919  | 19830602    |
| NL 8301963                                    | A    | 19840102 | NL 1983-1963    | 19830602    |
| GB 2123817                                    | A1   | 19840208 | GB 1983-15132   | 19830602    |
| GB 2123817                                    | B2   | 19850904 |                 |             |
| CA 1204116                                    | A1   | 19860506 | CA 1983-429562  | 19830602    |
| CH 659469                                     | A    | 19870130 | CH 1983-3034    | 19830602    |
| CH 659818                                     | A    | 19870227 | CH 1986-731     | 19830602    |
| JP 58225066                                   | A2   | 19831227 | JP 1983-98188   | 19830603    |
| JP 03054658                                   | B4   | 19910820 |                 |             |
| AT 8302040                                    | A    | 19870715 |                 |             |
| AT 385034                                     | B    | 19880210 | AT 1983-2040    | 19830603    |
| US 4596875                                    | A    | 19860624 | US 1984-623430  | 19840622    |
| ZA 8507945                                    | A    | 19861230 | ZA 1985-7945    | 19851016    |
| US 4735951                                    | A    | 19880405 | US 1985-790064  | 19851022    |
| EP 183584                                     | A1   | 19860604 | EP 1985-402052  | 19851023    |
| EP 183584                                     | B1   | 19891206 |                 |             |
| R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE |      |          |                 |             |
| AT 48424                                      | E    | 19891215 | AT 1985-402052  | 19851023    |
| CA 1259072                                    | A1   | 19890905 | CA 1985-494012  | 19851028    |
| AU 8549173                                    | A1   | 19860508 | AU 1985-49173   | 19851029    |
| AU 601942                                     | B2   | 19900927 |                 |             |
| JP 61109770                                   | A2   | 19860528 | JP 1985-240735  | 19851029    |
| JP 07088379                                   | B4   | 19950927 |                 |             |
| ES 548300                                     | A1   | 19870101 | ES 1985-548300  | 19851029    |
| HU 40649                                      | A2   | 19870128 | HU 1985-4147    | 19851029    |
| HU 197327                                     | B    | 19890328 |                 |             |
| ES 556096                                     | A1   | 19871101 | ES 1986-556096  | 19860616    |
| US 4736033                                    | A    | 19880405 | US 1986-945777  | 19861223    |
| US 4845105                                    | A    | 19890704 | US 1987-30680   | 19870324    |
| SE 8703886                                    | A    | 19871008 | SE 1987-3886    | 19871008    |
| SE 466656                                     | B    | 19920316 |                 |             |
| SE 466656                                     | C    | 19920716 |                 |             |
| US 4988708                                    | A    | 19910129 | US 1988-183911  | 19880420    |
| PRIORITY APPLN. INFO.:                        |      |          | FR 1982-9654    | 19820603    |
|   |      |          | US 1983-498832  | A3 19830527 |

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L9 ANSWER 14 OF 25 CA COPYRIGHT 2005 ACS on STN (Continued)  
 CH 1983-3034 A 19830602  
 US 1984-623430 A3 19840622  
 FR 1984-16573 A 19841030  
 US 1985-743792 A2 19850612  
 FR 1985-11389 A 19850725  
 US 1985-790064 A2 19851022  
 EP 1985-402052 A 19851023  
 US 1986-831356 A2 19860220  
 US 1986-890081 A1 19860724  
 US 1987-30680 A2 19870324

OTHER SOURCE(S): CASREACT 105:226393  
 GI



AB The title compds. I (R = H, halo, alkyl, alkoxy, CF<sub>3</sub>, OCF<sub>3</sub>, SCF<sub>3</sub>; R<sub>1</sub> = (un)substituted Ph or -heterocyclyl; R<sub>2</sub>, R<sub>3</sub> = H, alkyl, aryl; R<sub>4</sub> = R<sub>5</sub>CO; R<sub>5</sub> = alkyl, aryl), useful as antiinflammatories and analgesics, are prepared

by ring opening of II with R<sub>5</sub>CO<sub>2</sub>H. Thus, 3 g II (R = 5-CF<sub>3</sub>, R<sub>1</sub> = 2-thiazolyl, R<sub>2</sub> = H, R<sub>3</sub> = Et) was treated with 60 mL EtCO<sub>2</sub>H at 100-110° for 2.5 h to give 1.7 g I (R = 8-CF<sub>3</sub>, R<sub>1</sub> = 2-thiazolyl, R<sub>2</sub> = H, R<sub>3</sub> = Et, R<sub>4</sub> = EtCO) (III), which had ED<sub>50</sub> 0.8 mg/kg oral in mice in tests for inhibiting inflammation. Tablets were prepared containing 50

mg III and 350 mg excipients.

IT 98009-95-1P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and reaction of, with carboxylic acids)

RN 98009-95-1 CA

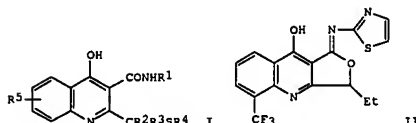
CN Furo[3,4-b]quinolin-9-ol, 1,3-dihydro-3-[(1-methylethyl)-1-(2-thiazolylimino)-5-(trifluoromethyl)- (9CI) (CA INDEX NAME)

L9 ANSWER 15 OF 25 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 105:114928 CA  
 TITLE: 4-Hydroxy-3-quinolinecarboxamides  
 INVENTOR(S): Clemence, Francois; Le Martret, Odile; Delevallee, Francoise  
 PATENT ASSIGNEE(S): Roussel-UCLAF, Fr.  
 SOURCE: Fr. Demande, 10 pp.  
 CODEN: FRXXBL  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE     |
|------------|------|----------|-----------------|----------|
| FR 2564835 | A1   | 19851129 | FR 1984-8011    | 19840523 |
| FR 2564835 | B1   | 19861024 |                 |          |

PRIORITY APPLN. INFO.: FR 1984-8011 19840523

OTHER SOURCE(S): CASREACT 105:114928  
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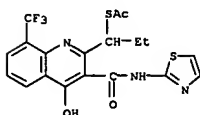


AB Amides I (R<sub>1</sub> = thiazolyl, pyridyl, oxazolyl, Ph, substituted Ph; R<sub>2</sub> = H, alkyl, aryl; R<sub>3</sub> = H, alkyl, aryl; R<sub>4</sub> = H, acyl; R<sub>5</sub> = H, halo, alkyl, alkoxy, CF<sub>3</sub>, SCF<sub>3</sub>, OCF<sub>3</sub>) were prepared, and showed antiinflammatory activity. Furoquinoline II was heated with MeCO<sub>2</sub>H to give I (R<sub>1</sub> = 2-thiazolyl, R<sub>2</sub> = H, R<sub>3</sub> = Et, R<sub>4</sub> = Ac, R<sub>5</sub> = 8-CF<sub>3</sub>) (III). In the Freund rat paw inflammation test III had an ED<sub>50</sub> of 5 mg/kg orally.

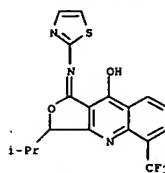
IT 104118-85-6P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of, as antiinflammatory agent)

RN 104118-85-6 CA

CN Ethanethioic acid, S-[1-[4-hydroxy-3-[(2-thiazolylamino)carbonyl]-8-(trifluoromethyl)-2-quinolynyl]propyl] ester (9CI) (CA INDEX NAME)



L9 ANSWER 14 OF 25 CA COPYRIGHT 2005 ACS on STN (Continued)



IT 98009-95-1P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and reaction of, with carboxylic acids)

IT 89441-23-6P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and reaction of, with carboxylic acids, quinolinecarboxamides from)

IT 105488-39-8P 105488-40-2P 105488-41-3P  
 105504-93-6P

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of, as antiinflammatory and analgesic)

L9 ANSWER 15 OF 25 CA COPYRIGHT 2005 ACS on STN (Continued)

IT 104118-85-6P 104118-86-7P 104118-87-8P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of, as antiinflammatory agent)

IT 89441-23-6  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with thioacetate)

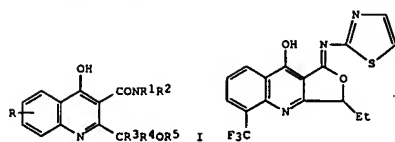
L9 ANSWER 16 OF 25 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 103:104864 CA  
 TITLE: 2-Substituted 4-hydroxy-3-quinolinecarboxylic acid derivatives and their medical use  
 INVENTOR(S): Clemence, Francois; Le Martret, Odile; Delevalles, Francoise  
 PATENT ASSIGNEE(S): Roussel-UCLAF, Fr.  
 SOURCE: Fr. Demande, 29 pp. Addn. to Fr. Demande Appl. No. 82 09654.  
 CODEN: FRXXBL  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 5  
 PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE                       |
|------------------------|------|----------|-----------------|----------------------------|
| FR 2551437             | A2   | 19850308 | FR 1983-13994   | 19830831                   |
| FR 2551437             | B2   | 19851025 |                 |                            |
| FR 2530633             | A1   | 19840127 | FR 1982-9654    | 19820603                   |
| FR 2530633             | B1   | 19841228 |                 |                            |
| SE 8302474             | A    | 19831204 | SE 1983-2474    | 19830502                   |
| SE 461041              | B    | 19891218 |                 |                            |
| SE 461041              | C    | 19900412 |                 |                            |
| US 4486438             | A    | 19841204 | US 1983-498832  | 19830527                   |
| BE 896941              | A1   | 19831202 | BE 1983-210919  | 19830602                   |
| NL 8301963             | A    | 19840102 | NL 1983-1963    | 19830602                   |
| GB 2123817             | A1   | 19840208 | GB 1983-15132   | 19830602                   |
| GB 2123817             | B2   | 19850904 |                 |                            |
| CA 1204116             | A1   | 19860506 | CA 1983-429562  | 19830602                   |
| CH 659469              | A    | 19870130 | CH 1983-3034    | 19830602                   |
| CH 659818              | A    | 19870227 | CH 1986-731     | 19830602                   |
| JP 58225066            | A2   | 19831227 | JP 1983-98188   | 19830603                   |
| JP 03054658            | B4   | 19910820 |                 |                            |
| AT 8302040             | A    | 19870715 | AT 1983-2040    | 19830603                   |
| AT 385034              | B    | 19880210 |                 |                            |
| US 4596875             | A    | 19860624 | US 1984-623430  | 19840622                   |
| US 4736033             | A    | 19880405 | US 1986-945777  | 19861223                   |
| SE 8703886             | A    | 19871008 | SE 1987-3886    | 19871008                   |
| SE 466656              | B    | 19920316 |                 |                            |
| SE 466656              | C    | 19920716 |                 |                            |
| PRIORITY APPLN. INFO.: |      |          |                 |                            |
|                        |      |          |                 | FR 1982-9654 19820603      |
|                        |      |          |                 | US 1983-498832 A3 19830527 |
|                        |      |          |                 | CH 1983-3034 A 19830602    |
|                        |      |          |                 | US 1984-623430 A3 19840622 |
|                        |      |          |                 | US 1985-743792 A2 19850612 |

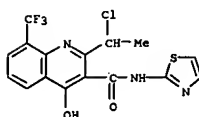
OTHER SOURCE(S): CASREACT 103:104864  
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L9 ANSWER 16 OF 25 CA COPYRIGHT 2005 ACS on STN (Continued)  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (prepn. and ring cleavage of)  
 IT 89441-31-6P 89441-33-8P 89441-34-9P  
 89441-36-1P 89441-37-2P 89441-38-3P  
 89441-39-4P 98009-96-2P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

L9 ANSWER 16 OF 25 CA COPYRIGHT 2005 ACS on STN (Continued)

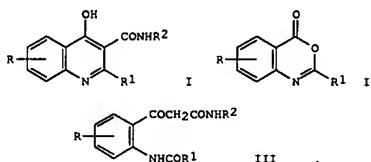


AB Quinolinecarboxamides I [R = H, halo, alkyl, alkoxy, CF3, SCF3, OCF3; R1 = H; R2 = thiazolyl, dihydrothiazolyl, pyridyl, oxazolyl, isoxazolyl, imidazolyl, pyrimidyl, tetrazolyl, Ph, hydroxy-, alkyl-, alkoxy-, (trifluoromethyl)-, nitro-, or halophenyl; R3 = H, alkyl, aryl; R4 = H, alkyl, aryl; R5 = H] were prepared A  
 2-(1-chloropropyl)-4H-3,1-benzoxazin-4-one derivative was treated with 4-(dimethylamino)pyridine in THF to yield furoquinoline derivative II, and the latter was heated with HCl to give  
 I (R = 8-CF3, R1 = R3 = R5 = H, R2 = 2-thiazolyl, R4 = Et), which exhibited analgesic and antiinflammatory activity.  
 IT 80777-24-8  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (cyclization of, furoquinoline derivative from)  
 RN 80777-24-8 CA  
 CN 3-Quinolinecarboxamide, 2-(1-chloroethyl)-4-hydroxy-N-2-thiazolyl-8-(trifluoromethyl)- (9CI) (CA INDEX NAME)

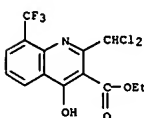


IT 80777-24-8  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (cyclization of, furoquinoline derivative from)  
 IT 89441-40-7P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation and analgesic and antiinflammatory activity of)  
 IT 89441-18-9P 89441-19-0P 89441-21-4P  
 89441-22-5P 89441-23-6P 89441-24-7P  
 98009-94-0P 98009-95-1P

L9 ANSWER 17 OF 25 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 102:149080 CA  
 TITLE: New route to N-aryl and N-heteroaryl derivatives of 4-hydroxy-3-quinolinecarboxamides  
 AUTHOR(S): Clemence, Francois; Le Martret, Odile; Collard, Jeannine  
 CORPORATE SOURCE: Cent. Rech. Roussel Uclaf, Romainville, 93230, Fr.  
 SOURCE: Journal of Heterocyclic Chemistry (1984), 21(5), 1345-53  
 CODEN: JHTCAD; ISSN: 0022-152X  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 102:149080  
 GI



AB The N-aryl and N-heteroaryl substituted 4-hydroxy-3-quinolinecarboxamides I (R = H, Cl, F3C, R1 = H, Me, Et F3C, Cl2CH, etc.; R3 = 2-thiazolyl, 2-pyridyl, 2-oxazolyl, 4-MeOC6H4, 4,5-dihydro-2-thiazolyl) were prepared by attack of dianions of N-aryl substituted acetamides on the C-4 carbonyl of 4H-3,1-benzoxazin-4-ones II to give ketoamides III, which smoothly cyclized in the presence of bases to afford I.  
 IT 80777-17-9P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and reaction with aminothiazole)  
 RN 80777-17-9 CA  
 CN 3-Quinolinecarboxylic acid, 2-(dichloromethyl)-4-hydroxy-8-(trifluoromethyl)-, ethyl ester (9CI) (CA INDEX NAME)



IT 80777-17-9P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and reaction with aminothiazole)

L9 ANSWER 17 OF 25 CA COPYRIGHT 2005 ACS on STN (Continued)  
 IT 64321-64-8P 80777-20-4P 80777-22-6P  
 80777-24-8P 80777-32-8P 80777-34-6P  
 80777-44-2P 80783-80-8P 89441-10-1P  
 89441-24-7P 91457-69-1P 91457-72-6P  
 91457-74-8P 91457-77-1P 91533-76-5P  
 95632-07-8P 95632-08-9P 95632-11-4P  
 95632-12-5P 95632-13-6P 95632-16-9P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 IT 64321-66-0  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with aminothiazole)

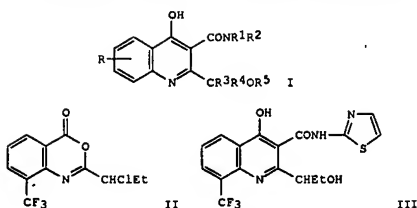
L9 ANSWER 18 OF 25 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 100:138971 CA  
 TITLE: 4-Hydroxy-3-quinolinecarboxamides and their use as  
 pharmaceuticals.  
 INVENTOR(S): Clemence, Francois; Le Martret, Odile; Delevallee,  
 Francoise  
 PATENT ASSIGNEE(S): Roussel-UCLAF, Fr.  
 SOURCE: Ger. Offen., 41 pp.  
 CODEM: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 5  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|-------------|------|----------|-----------------|----------|
| DE 3320102  | A1   | 19831208 | DE 1983-3320102 | 19830603 |
| DE 3320102  | C2   | 19920702 |                 |          |
| FR 2530633  | A1   | 19840127 | FR 1982-9654    | 19820603 |
| FR 2530633  | B1   | 19841228 |                 |          |
| SE 8302474  | A    | 19831204 | SE 1983-2474    | 19830502 |
| SE 461041   | B    | 19891218 |                 |          |
| SE 461041   | C    | 19900412 |                 |          |
| US 4486438  | A    | 19841204 | US 1983-498832  | 19830527 |
| BE 896941   | A1   | 19831202 | BE 1983-210919  | 19830602 |
| NL 8301963  | A    | 19840102 | NL 1983-1963    | 19830602 |
| GB 2123817  | A1   | 19840208 | GB 1983-15132   | 19830602 |
| GB 2123817  | B2   | 19850904 |                 |          |
| CA 1204116  | A1   | 19860506 | CA 1983-429562  | 19830602 |
| CH 659469   | A    | 19870130 | CH 1983-3034    | 19830602 |
| CH 659818   | A    | 19870227 | CH 1986-731     | 19830602 |
| JP 58225066 | A2   | 19831227 | JP 1983-98188   | 19830603 |
| JP 03054658 | B4   | 19910820 |                 |          |
| AT 8302040  | A    | 19870715 | AT 1983-2040    | 19830603 |
| AT 385034   | B    | 19880210 |                 |          |
| US 4596875  | A    | 19860624 | US 1984-623430  | 19840622 |
| US 4736033  | A    | 19880405 | US 1986-945777  | 19861223 |
| SE 8703886  | A    | 19871008 | SE 1987-3886    | 19871008 |
| SE 466656   | B    | 19920316 |                 |          |
| SE 466656   | C    | 19920716 |                 |          |

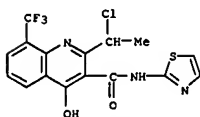
PRIORITY APPLN. INFO.: FR 1982-9654 A 19820603  
 US 1983-498832 A3 19830527  
 CH 1983-3034 A 19830602  
 US 1984-623430 A3 19840622  
 US 1985-743792 A2 19850612

OTHER SOURCE(S): CASREACT 100:138971  
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L9 ANSWER 18 OF 25 CA COPYRIGHT 2005 ACS on STN (Continued)



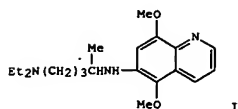
AB Title compds. (I) [R = 5-8 H, halo, C1-5 alkyl, C1-4 alkoxy, CF3, etc.;  
 R1 = H, C1-4 alkyl; R2 = (alkyl)heterocyclyl, e.g., thiazolyl, pyridyl,  
 aryl,  
 etc.; R3, R4 = H, C1-4 alkyl, aryl; R5 = H, C1-4 alkyl, COR6; R6 = C1-4  
 alkyl, aryl] were prepared and in some cases effective as analgesics at  
 0.3-1.2 mg./kg. and as antiinflammatories at 12-15 mg./kg. Thus,  
 2,3-H2N(CF3)C6H3CO2H was treated with EtCHClCOCl to give  
 2-(1-chloropropyl)-8-trifluoromethyl-4H-3,1-benzoxazin-4-one (II), which  
 was treated with N-2-thiazolylacetamide and BuLi, and the resulting  
 propenamide derivative cyclized by refluxing with  
 (dimethylamino)pyridine in  
 THF, and hydrolyzed to give  
 4-hydroxy-2-[(1-hydroxypropyl)-N-2-thiazolyl-8-  
 (trifluoromethyl)-3-quinolinecarboxamide (III).  
 IT 80777-24-8  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (acetolysis of)  
 RN 80777-24-8 CA  
 CN 3-Quinolonecarboxamide, 2-[(1-chloroethyl)-4-hydroxy-N-2-thiazolyl-8-  
 (trifluoromethyl)- (9CI) (CA INDEX NAME)



IT 80777-24-8  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (acetolysis of)  
 IT 89441-10-1P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and demethylation with boron bromide)  
 IT 89441-17-8P 89441-18-9P 89441-19-0P  
 89441-21-4P 89441-22-5P 89441-23-6P  
 89441-24-7P

L9 ANSWER 18 OF 25 CA COPYRIGHT 2005 ACS on STN (Continued)  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (prepn. and hydrolysis of)  
 IT 89441-38-3P 89441-39-4P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 IT 89441-32-7P 89441-33-8P 89441-34-9P  
 89441-36-1P 89441-37-2P 89441-40-7P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of, as analgesic or inflammation inhibitor)  
 IT 89441-31-6P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation, and analgesic and antiinflammatory activity of)

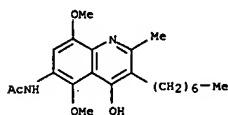
L9 ANSWER 19 OF 25 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 89:19743 CA  
 TITLE: Antimalarial 6-aminoquinolines. XI. Some 2-, 3-, and 4-alkyl-, aryl-, and arylalkyl derivatives  
 AUTHOR(S): Nickel, P.; Zimmerman, R.; Preissinger, L.; Fink, E.  
 CORPORATE SOURCE: Inst. Pharm. Lebensmittelchem., Univ. Wuerzburg, Wuerzburg, Fed. Rep. Ger.  
 SOURCE: Arzneimittel-Forschung (1978), 28(5), 723-31  
 CODEN: ARZNAD; ISSN: 0004-4172  
 DOCUMENT TYPE: Journal  
 LANGUAGE: German  
 GI



AB Twenty-three derivs. of 6-(4-diethylamino-1-methylbutylamino)-5,8-dimethoxyquinoline (I) were synthesized and all were active against Plasmodium vinckei infections in mice. However, none were more effective than 2,4-dimethyl-5,8-dimethoxyquinoline (52823-95-7). Flat mols. and bulky hydrogenated derivs. showed comparable activity, indicating that a flat structure is not essential for the activity of the 6-aminoquinolines.

IT 67188-16-3P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

RN 67188-16-3 CA  
 CN Acetamide, N-(3-heptyl-4-hydroxy-5,8-dimethoxy-2-methyl-6-quinolinyl)- (9CI) (CA INDEX NAME)



IT 67188-16-3P 67188-24-3P 67188-30-1P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

L9 ANSWER 21 OF 25 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 78:84229 CA  
 TITLE: Additions to the triple bond. XIX. Tricyclic heteroaromatic compounds via sigmatropic rearrangement  
 AUTHOR(S): Bleichert, Siegfried; Gericke, Rolf; Winterfeldt, Ekkehard  
 CORPORATE SOURCE: Org.-Chem. Inst., Tech. Univ. Hannover, Hannover, Fed. Rep. Ger.  
 SOURCE: Chemische Berichte (1973), 106(1), 355-67  
 CODEN: CHBEAM; ISSN: 0009-2940  
 DOCUMENT TYPE: Journal  
 LANGUAGE: German  
 GI For diagram(s), see printed CA Issue.

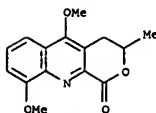
AB Treatment of the quinolone (I, R = H) with H2SO4 gave the lactone (II). Similarly, the furoquinoline (III) was obtained from I (R = Cl).

Reaction of I (R = Cl) with SOCl2 gave the chloride (IV), which on hydrolysis gave the ketone (V). Storage of V for several days at 0° gave the enol lactone (VI). Treatment of I (R = H) with N-bromosuccinimide gave the furoquinoline (VII). Pfizner-Moffatt oxidation of the diol VIII gave

the aldehyde (IX).

IT 40684-28-4P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

RN 40684-28-4 CA  
 CN 1H-Pyrano[3,4-b]quinolin-1-one, 3,4-dihydro-5,9-dimethoxy-3-methyl- (9CI) (CA INDEX NAME)



IT 40684-28-4P 40684-39-7P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

L9 ANSWER 20 OF 25 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 81:120598 CA  
 TITLE: Fused pyridines  
 INVENTOR(S): Bleichert, Siegfried; Gericke, Rolf; Winterfeldt, Ekkehard  
 PATENT ASSIGNEE(S): BASF A.-G.  
 SOURCE: Ger. Offen., 21 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE       |
|------------------------|------|----------|-----------------|------------|
| DE 2301401             | A1   | 19740718 | DE 1973-2301401 | 19730112   |
| PRIORITY APPLN. INFO.: |      |          | DE 1973-2301401 | A 19730112 |

GI For diagram(s), see printed CA Issue.

AB About 20 pyridine compds. I-V [X = CH:C(OMe) or S; R = H or Me; R1 = H, CO2Me, or CH2CHMeOH; R2 = allyl, CH2C(Cl)CH2, or CH2OH; R3 = H, CO2Me, or CHO; R4 = Me or CH2Br; R5 = e.g. allyl or CH2CO2Me; R6 = Cl or OMe],

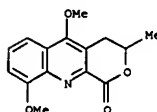
useful as bactericides, were prepared by cyclization of di-Me (allylamino)maleates.

Thus, 2-MeOC6H4N(CH2CH:CH2)C(CO2Me):CH(CO2Me) was autoclaved in C6H6 at 205° to give 22a I [X = CH:C(OMe), R = H, R1 = CO2Me, R2 = allyl], which was treated with concentrated H2SO4 at room temperature to give

66a II [X = CH:C(OMe)] and 7a III [X = CH:C(OMe), R3 = CO2Me, R4 = Me].

IT 40684-28-4P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

RN 40684-28-4 CA  
 CN 1H-Pyrano[3,4-b]quinolin-1-one, 3,4-dihydro-5,9-dimethoxy-3-methyl- (9CI) (CA INDEX NAME)



IT 40684-28-4P 40684-39-7P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

L9 ANSWER 22 OF 25 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 52:61271 CA  
 ORIGINAL REFERENCE NO.: 52:11093e-1, 11094a-1, 11095a-1, 11096a-1, 11097a-d  
 TITLE: The alkaloids of Tabernanthe iboga. IV. The structures

of ibogamine, ibogaine, tabernanthine, and voacangine  
 AUTHOR(S): Bartlett, M. F.; Dickel, D. F.; Taylor, W. I.  
 CORPORATE SOURCE: C I B A Pharm. Prods., Inc., Summit, NJ  
 SOURCE: Journal of the American Chemical Society (1958), 80, 126-36  
 CODEN: JACSAT; ISSN: 0002-7863

DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable  
 OTHER SOURCE(S): CASREACT 52:61271

GI For diagram(s), see printed CA Issue.

AB The structures (X, R, R' = H; R = MeO, R' = H; and R = H, R' = MeO) were elucidated for II, I, and VI, resp., and structure XI for IX. I (0.5 g.) in 7.5 cc. AcOH and 1.5 cc. 49% HBr refluxed 3.5 hrs. under N, diluted

with H2O, basified, filtered, and the amorphous residue treated with HCl gave noribogaine-HCl (XII.HCl), m. 310° (decomposition), [α]<sub>D</sub> -36.5° (H2O). Powdered I (5 g.) added with stirring to 0.37 g. Na in 100 cc. dry liquid NH3, the mixture treated dropwise after 20 min. with

1.03 cc. MeI in 40 cc. Et2O, the NH3 evaporated, the residue triturated with CH2Cl2, the extract evaporated, and the residue dissolved in C6H6 and passed through 25 g. Al2O3 gave 4.1 g. N-Me derivative (XIII) of I, m. 104-6° (EtOH), [α]<sub>D</sub> -33° (CHCl3). XIII (500 mg.) demethylated in the usual manner in AcOH-HBr and the product purified through its oxalate, m. 200°, and sublimed at 180° and 0.03 mm. yielded glassy alloibogaine (XIV); XIV.HCl, m. 294-6° (decomposition) (EtOH), [α]<sub>D</sub> -58° (MeOH). I subjected to a KOH fusion and the crude product purified through its oxalate, m. 200°, gave XIV. Iodine (2.48 g.) in 40 cc. tetrahydrofuran added dropwise with stirring to 2 g.

I in 50 cc. tetrahydrofuran and 40 cc. H2O containing 2.7 g. NaHCO3, diluted with H2O and CH2Cl2, cooled, and the organic layer worked up gave 2.1 g. lactam

(XV) of I, m. 218-20° (EtOH). [α]<sub>D</sub> -9° (rotations were measured in EtOH at 26° except where indicated otherwise). XV refluxed with 2N HCl or 25% aqueous KOH, or treated with BzH and NaOMe, remained unaffected. I (1 g.) in 10 cc. pyridine added slowly to 1 g. CrO3 in 17 cc. pyridine with cooling, kept 20 hrs. at room temperature, concentrated

in vacuo, filtered, the filtrate extracted with CH2-Cl2, and the extract worked

up gave 0.44 g. XV, m. 221° (MeOH), [α]<sub>D</sub> -16°. XV (100 mg.) in 20 cc. tetrahydrofuran refluxed 4 hrs. with 150 mg. LiAlH4, diluted with a few drops of H2O, filtered, and evaporated gave 60 mg. I,

m. 146-8°, [α]<sub>D</sub> -48° (EtOH). I (5.0 g.) oxidized with CrO3 in the usual manner, and the crude product chromatographed on 100 g. Al2O3 with CH2Cl2 gave 1.86 g. XV, m. 220-1°, and 0.21 g. oxoibogaine lactam, m. 318-20° (decomposition) (MeOH/Et2O), [α]<sub>D</sub> -49°. Tetrahydrocarbazole (XVI) (5 g.) in 50 cc. pyridine treated 20 hrs. with 5 g. CrO3 in 95 cc. pyridine, filtered, the solid triturated with CH2Cl2, the extract washed with dilute aqueous NaOH, dilute H2SO4, and H2O, the

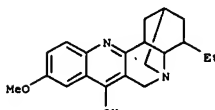
L9 ANSWER 22 OF 25 CA COPYRIGHT 2005 ACS on STN (Continued)  
acidic ext. basified with alkali, extd. with CH<sub>2</sub>Cl<sub>2</sub>, the ext. evapd., and the dark brown residue (0.63 g.) sublimed at 200°/0.03 mm. gave the 4-oxo deriv. of XVI, m. 225° (MeOH-Et<sub>2</sub>O) (sublimed at 145°/0.04 mm.). I (1.0 g.) in 10 cc. pyridine and 5 cc. H<sub>2</sub>O added to 1.0 g. CrO<sub>3</sub> in 17 cc. pyridine, kept 20 hrs. at room temp., filtered, the filtrate basified, extd. with CH<sub>2</sub>Cl<sub>2</sub>, the ext. worked up, the residue (1.18 g.) chromatographed on 20 g. Al<sub>2</sub>O<sub>3</sub>, and the product (600 mg.) in Et<sub>2</sub>O kept several weeks at 0° gave a small amt. of hydroperoxyindolenine deriv. of I, m. 228-9° (Me<sub>2</sub>CO-Et<sub>2</sub>O). XV (0.5 g.) refluxed 3.5 hrs. under N with 7.5 cc. AcOH and 1.5 cc. 49% HBr, cooled, and basified gave the lactam (XVII) of XII, m. 184-6° with foaming (EtOH). XVII treated with KOH and Me<sub>2</sub>SO<sub>4</sub> in Me<sub>2</sub>CO gave XV. XV (1 g.) in 50 cc. CHCl<sub>3</sub> ozonized about 40 min. at 0°, refluxed 3 hrs. with 15 cc. HCO<sub>2</sub>H and 3.5 cc. H<sub>2</sub>O<sub>2</sub>, dild. with H<sub>2</sub>O, the aq. layer evapd., and the residue treated with excess CH<sub>2</sub>N<sub>2</sub> and distd. yielded Me oxamate, m. 118°, and 190 mg. di-Me ester, b.p. 0.1 130°, [α]<sub>D</sub> 14°, of XVII. I oxidized with iodine and NaHCO<sub>3</sub> in the usual manner gave the lactam (XIX) of II. II (1.0 g.) oxidized with CrO<sub>3</sub> yielded 0.31 g. XIX, m. 329-31° (decompn.) (MeOH), reduced to II. The lactam of IV, m. 312-15° (decompn.) (Et<sub>2</sub>O-CH<sub>2</sub>Cl<sub>2</sub>), was obtained similarly by both methods; it gave on reduction IV. VIII (3.0 g.) in 30 cc. pyridine added slowly to 3.0 g. CrO<sub>3</sub> in 50 cc. pyridine, kept 18 hrs. at room temp., evapd., the residue triturated with CH<sub>2</sub>Cl<sub>2</sub>, filtered, the filtrate washed with small portions of satd. aq. NaCl, dried, evapd., and the residue (2.29 g.) chromatographed on Al<sub>2</sub>O<sub>3</sub> with 99.9:0.1 CH<sub>2</sub>Cl<sub>2</sub>-MeOH yielded 0.89 g. lactam of VIII, m. 171-2° (MeOH-Et<sub>2</sub>O). V (290 mg.) in 10 cc. pyridine and 290 mg. CrO<sub>3</sub> in 3 cc. pyridine kept 22 hrs. at room temp. yielded 140 mg. (crude) lactam (XX) of V, m. 334-7° (decompn.) (MeOH-Et<sub>2</sub>O). XV (2.0 g.) in 150 cc. C<sub>6</sub>H<sub>6</sub> and 20 cc. EtOH aerated with heating during 1 day while illuminated with long-wave ultraviolet irradiation gave 0.8 g. hydroperoxyindolenine deriv. (XXI) of XV, m. 334-7° (decompn.) (MeOH-Et<sub>2</sub>O). The XXI refluxed 2 hrs. with 2.5 g. NaOH in 40 cc. EtOH, acidified, extd. with CH<sub>2</sub>Cl<sub>2</sub>, and the ext. worked up gave 0.32 g. XX, m. 343-5° (MeOH). I (4 g.) and 6 g. Se heated 12 min. at 180-300°, then kept 18 min. at 300-17°, cooled, powdered, extd. with C<sub>6</sub>H<sub>6</sub> overnight, the ext. evapd., and the residue extd. selectively gave a trace of alkali-sol. material, 2% AcOH-sol. material, 0.5% H<sub>2</sub>SO<sub>4</sub> sol. product, and neutral material. The neutral fraction (1.5 g.) chromatographed on 25 g. Al<sub>2</sub>O<sub>3</sub> yielded 35 mg. 4-ethyl-5,6,7,12-tetrahydro-9-methoxy-2-methylindolo[3,2-d]benzazepine (XXII), m. 208°. XXII and NaNO<sub>2</sub> in AcOH gave the N-HO deriv. (XXIII) of XXII, needles, m. 204-5° (EtOH). XXIII treated with CuCl and concd. HCl yielded XXII. XXII treated 2.5 hrs. with NaOAc and Ac<sub>2</sub>O at 110° gave the N-Ac deriv. of XXII, needles, m. 246° (EtOH), which was recovered unchanged after treatment with NaNO<sub>2</sub> and AcOH. The 2% AcOH-sol. material (9.68 g. from 79.5 g. I) chromatographed on 70 g. Al<sub>2</sub>O<sub>3</sub> yielded 1.13 g. I and 0.91 g. 4-ethyl-8-methoxy-2,6-dimethyl-11H-indolo[3,2-c]quinoline (XXIV), plates, m. 100 and 156°, needles, m. 100 and 176°; the dimorphic forms hand-sepd. and sublimed at 140°/0.01 mm. gave XXIV, m. 178°. XXIV (30 mg.) heated 2.5 hrs. at 130° with excess MeI

L9 ANSWER 22 OF 25 CA COPYRIGHT 2005 ACS on STN (Continued)  
cc. 50% aq. NaOH, and refluxed 3 hrs., and the product isolated with CH<sub>2</sub>Cl<sub>2</sub> and chromatographed on Al<sub>2</sub>O<sub>3</sub> gave 50 mg. IV and 280 mg. pseudindoxyl deriv. (XXXIII) of IV, m. 168-70°. Crude XXXIII (900 mg.) and 900 mg. NH<sub>2</sub>OH.HCl in 30 cc. pyridine refluxed 40 hrs. under N, evapd. in vacuo, and the residue chromatographed on Al<sub>2</sub>O<sub>3</sub> gave 700 mg. unchanged XXXIII and 100 mg. oxime (XXXIV) of XXXIII, m. 279-81° (MeOH-Et<sub>2</sub>O), [α]<sub>D</sub> -149° (pyridine). XXXIV (310 mg.) and 310 mg. XXXI in 10 cc. pyridine refluxed 2 hrs. under N, dild. with 10 cc. H<sub>2</sub>O, refluxed 1 hr., and worked up gave 20 mg. 2,4-AcNH(MeO)C<sub>6</sub>H<sub>3</sub>CN (XXXV), m. 155-6°, and 70 mg. XXXI, characterized as XXXII (50 mg.), m. 115-16°, [α]<sub>D</sub> -216°. Further elution of the column (which had yielded XXXIII) with 98:2 CH<sub>2</sub>Cl<sub>2</sub>-MeOH gave the oxindole deriv. (with 0.25H<sub>2</sub>O) (XXXVI) of VIII, m. 191-7° (Me<sub>2</sub>CO). XXXI (255 mg.) in CH<sub>2</sub>Cl<sub>2</sub> kept overnight with excess Cl<sub>2</sub>CH, evapd., and the residue dissolved in C<sub>6</sub>H<sub>6</sub>, washed with dil. H<sub>2</sub>SO<sub>4</sub>, concd., and dild. with Et<sub>2</sub>O yielded 3.3 g. XXXVII, m. 96-7° (sublimed), [α]<sub>D</sub> -76°. XXXVII (380 mg.) and 300 mg. LiAlH<sub>4</sub> refluxed 12 hrs. in 10 cc. tetrahydrofuran yielded 280 mg. 8-ethyl-6-methyl-4-hydroxydecahydroquinoline; a 260-mg. portion heated 6 hrs. at 330° in a sealed evacuated tube with 360 mg. Se and the basic material isolated yielded 63 mg. 8-ethyl-6-methylquinoline (XXXVIII) which with picric acid gave 80 mg. picrate (XXXIX) of XXXVIII, m. 154-5° (EtOH). 2,4-EtMeC<sub>6</sub>H<sub>3</sub>NH<sub>2</sub> (1.31 g.), 2.4 cc. glycerol, 1.39 g. As<sub>2</sub>O<sub>5</sub>, and 1.5 cc. concd. H<sub>2</sub>SO<sub>4</sub> heated 4 hrs. at 140-50°, dild. with H<sub>2</sub>O, basified, extd. with Et<sub>2</sub>O, and the crude basic product treated with picric acid gave XXXIX. I (1.0 g.) and 400 mg. BrCN in 30 cc. dry C<sub>6</sub>H<sub>6</sub> filtered after several hrs. from 600 mg. I.HBr, the filtrate worked up, and the residue crystd. from EtOH yielded 30 mg. N-cyanoapobogaine (XL), m. 208-9°, [α]<sub>D</sub> -165° (CHCl<sub>3</sub>); the mother liquor gave a material which contained 13.3% Br and exhibited an ultraviolet spectrum essentially identical with that of 5-methoxyindole. KNO<sub>3</sub> (840 mg.) in 15 cc. Me<sub>2</sub>CO added slowly during 4 hrs. at room temp. to 203 mg. XL in 15 cc. Me<sub>2</sub>CO, the mixt. filtered, treated with gaseous SO<sub>2</sub>, filtered, and the solid (100 mg.) crystd. from EtOH contg. a trace of H<sub>2</sub>O gave XLI. 0.5H<sub>2</sub>O, m. 196°. XLI. 0.5H<sub>2</sub>O and CH<sub>2</sub>N<sub>2</sub> yielded the Me ester (XLII) of XLI, m. 186° (MeOH), [α]<sub>D</sub> 112° (CHCl<sub>3</sub>). XLI (50 mg.) and 1 cc. 2N HCl heated 12 hrs. in a sealed tube at 100°, cooled, and the deposit crystd. from 2N HCl or MeOH-EtOAc gave XLIII, m. 201° (decompn.). XLIII refluxed in aq. AcOH contg. maleic acid and Pd gave the typical spectrum for the tetrahydro analog. Me<sub>3</sub>COCl in CCl<sub>4</sub> (2.33 cc. 0.27M) added slowly to 200 mg. aricine (XLIV) in 10 cc. cold CH<sub>2</sub>Cl<sub>2</sub> 1 drop Et<sub>3</sub>N, warmed after 2 min. to room temp., washed, dried, evapd., and the residue treated with a few drops alc. HCl and recrystd. from EtOH-Et<sub>2</sub>O yielded dehydroaricine HCl salt, m. 201° (decompn.). XLIV (100 mg.), 30 mg. maleic acid, and 40 mg. Pd black refluxed 2 hrs. in 50% AcOH, cooled, filtered, concd., treated with a few drops alc. HCl, and recrystd. from EtOH-EtOAc gave tetrahydroaricine HCl salt, m. 185° (decompn.). CHCl<sub>3</sub> (2 cc.) added slowly with stirring to 2 g. II in 100

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gave XXIV, m. above 300° (MeOH). The 0.5% H<sub>2</sub>SO<sub>4</sub>-sol. material (2.5 g.) chromatographed over 30 g. Al<sub>2</sub>O<sub>3</sub> and the C<sub>6</sub>H<sub>6</sub> eluate (0.586 g.) treated with 400 mg. picric acid gave 210 mg. picrate of C<sub>20</sub>H<sub>24</sub>N<sub>2</sub>O, m. 165-7° (EtOH). II (4.3 g.) and 6 g. Se heated during 35 min. from 180° to 315° and the product dissolved in C<sub>6</sub>H<sub>6</sub> and extd. selectively yielded a trace of NaOH-sol. material, 280 mg. 2% AcOH-sol. product, 110 mg. 0.5% H<sub>2</sub>SO<sub>4</sub>-sol. material, and 2.28 g. neutral portion. The neutral material chromatographed on 30 g. Al<sub>2</sub>O<sub>3</sub> yielded 1.04 g. oily material (XXV) and 150 mg. 4-ethyl-5,6,7,12-tetrahydro-2-methylindolo[3,2-d]benzazepine, m. 187° (EtOH). The 2% AcOH-sol. material chromatographed on 10 g. Al<sub>2</sub>O<sub>3</sub> yielded 101 mg. 4-ethyl-2,6-dimethyl-11H-indolo[3,2-c]quinoline (XXVI), m. 196-7°; XXVI.HCl, m. above 320° (EtOH-H<sub>2</sub>O). The crude H<sub>2</sub>SO<sub>4</sub>-sol. material distd. at 0.02 mm. and the oily distillate (78.9 mg.) treated with picric acid yielded 50 mg. picrate of C<sub>19</sub>H<sub>22</sub>N<sub>2</sub>, m. 179° (EtOH); the free base (from 20 mg. picrate) showed absorption max. at 224 and 274, plateaus at 268-72, 290-1, and a shoulder at 285 mm. XXV (600 mg.) kept 24 hrs. in 50 cc. AcOH, 11 cc. concd. H<sub>2</sub>O<sub>2</sub>, and 0.2 cc. 1% NH<sub>4</sub> molybdate, basified, extd. with CH<sub>2</sub>Cl<sub>2</sub>, the ext. evapd., the residual oil (0.54 g.) heated 40 min. on the steam bath with 5 cc. MeOH and 10 cc. 50% HCl, washed with CH<sub>2</sub>Cl<sub>2</sub>, basified, extd. with CH<sub>2</sub>Cl<sub>2</sub>, and the residue from the ext. sublimed yielded 26 mg. o-H<sub>2</sub>N<sub>2</sub>C<sub>6</sub>H<sub>4</sub>COEt, m. 44-5°. I (99 g.) in 1.5 l. C<sub>6</sub>H<sub>6</sub> slowly aerated 40 hrs. under an ultraviolet lamp, the C<sub>6</sub>H<sub>6</sub> distd., the dark brown residue refluxed 3 hrs. in 1.75 l. 80% EtOH contg. 280 g. NaOH, kept at room overnight, and the cryst. deposit (33.3 g.) recrystd. from MeOH yielded 31 g. pure VIII, m. above 140°. VIII (2 g.) and 2 g. NH<sub>2</sub>OH.HCl in 40 cc. abs. EtOH contg. 1.8 g. Na heated 24 hrs. in a sealed tube at 140° under N, poured onto crushed ice, extd. with CH<sub>2</sub>Cl<sub>2</sub>, and the ext. worked up yielded 1.44 g. oxime (XXVII) of VIII, m. 293-4° (95% EtOH), [α]<sub>D</sub> -151° (pyridine). VII (1.21 g.) yielded similarly 0.6 g. oxime (XXVIII), m. 273-6°, [α]<sub>D</sub> -183° (pyridine). XXVII (5.0 g.) and 5.0 g. p-MeC<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>Cl (XXIX) in 150 cc. pyridine heated 2 hrs. under N, dild. with H<sub>2</sub>O, refluxed 1 hr., 2 such mixts. combined, evapd. at 17 mm., the residue dild. with H<sub>2</sub>O, adjusted with aq. NaOH to pH 10, extd. with CH<sub>2</sub>Cl<sub>2</sub>, the dried ext. evapd., and the residue chromatographed on Al<sub>2</sub>O<sub>3</sub> yielded a light yellow oil which, dissolved in 10 cc. Ac<sub>2</sub>O and kept at room temp. overnight, yielded 1.82 g. 2,5-AcNH(MeO)C<sub>6</sub>H<sub>3</sub>CN (XXX), m. 179-80° (pure tetrahydrofuran); the Ac<sub>2</sub>O mother liquors dild. with CH<sub>2</sub>Cl<sub>2</sub>, extd. with 5% H<sub>2</sub>SO<sub>4</sub>, the ext. washed with CH<sub>2</sub>Cl<sub>2</sub>, basified, extd. with CH<sub>2</sub>Cl<sub>2</sub>, and the ext. worked up gave 1.82 g. XXXI, b.p. 0.3 99°. XXXI (190 mg.) and 0.44 cc. Br in 25 cc. 95% EtOH and 1.0 cc. 5N NaOH kept 1 hr. at room temp., dild. with H<sub>2</sub>O, and the product isolated with Et<sub>2</sub>O yielded 110 mg. benzylidene deriv. (XXXII) of XXXI, m. 115°, [α]<sub>D</sub> -208°. XXXIII (360 mg.) refluxed 2 hrs. with 360 mg. XXIX in 10 cc. pyridine yielded 50 mg. o-AcNH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>CN, m. 134-5°; the mother liquors yielded 70 mg. XXXI, converted to XXXII, m. 113-14°, [α]<sub>D</sub> -204°. IV (500 mg.) in 50 cc. EtOH oxidized in the presence of 300 mg. prerduced PtO<sub>2</sub> with 44 cc. O during 4.5 hrs., filtered, evapd., the residue in 20 cc. EtOH hydrogenated 0.5 hr. over 100 mg. PtO<sub>2</sub>, filtered, treated with 2

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cc. Me<sub>2</sub>CO contg. 0.55 g. K, the Me<sub>2</sub>CO distd. after 1 hr., the residue dild. with H<sub>2</sub>O, and the product isolated with CH<sub>2</sub>Cl<sub>2</sub> gave 1.72 g. material yielding on recrystn. from EtOH 0.67 g. II; the residue from the mother liquor chromatographed with C<sub>6</sub>H<sub>6</sub> gave 0.64 g. (dichloromethyl)indolenine deriv. of I, m. 140°. CHCl<sub>3</sub> (17 cc.) added slowly with stirring to 10 g. XVI and 4.7 g. K in 250 cc. Me<sub>2</sub>CO and worked up after 2 hrs. in the usual manner gave 3.4 g. 11-(dichloromethyl)carbazolene (XLV), m. 158-9°. XLV (2.04 g.) refluxed 16 hrs. under N in 100 cc. EtOH contg. 20 cc. 5N KOH, the EtOH distd., and the product (1.1 g.) isolated with CH<sub>2</sub>Cl<sub>2</sub> and chromatographed on 23 g. Al<sub>2</sub>O<sub>3</sub> yielded 0.44 g. unchanged XLV and 0.51 g. lactam of o-H<sub>2</sub>N<sub>2</sub>C<sub>6</sub>H<sub>4</sub>C(C<sub>6</sub>H<sub>5</sub>) (CH<sub>2</sub>)<sub>4</sub>CO<sub>2</sub>H (XLVI), m. 194-5° (EtOH-H<sub>2</sub>O); the alk. concentrate from this run brought to pH 6 and extd. 48 hrs. with Et<sub>2</sub>O yielded 0.7 g. oily XLVI which, treated with CH<sub>2</sub>N<sub>2</sub> and distd., gave the Me ester, b.p. 0.1 110-20° (bath). The 7-MeO deriv. of XVI (1.5 g.) kept 2.5 hrs. at 40° in 1.5 l. petr. ether and filtered yielded 11-hydroperoxy-7-methoxycarbazolene (XLVII), m. 104° (decompn.) (EtOAc). XLVII (1 g.) in 15 cc. EtOAc hydrogenated over a Pt catalyst gave 800 mg. 11-HO analog (XLVIII) of XLVII, m. 145° (Me<sub>2</sub>CO). XLVIII (0.66 g.) in 12 cc. 50% aq. EtOH contg. 0.5 g. KOH refluxed 0.5 hr. and the product isolated with Et<sub>2</sub>O gave 7-methoxy-2,2-tetramethylenepseudoindoxyl (XLIX), m. 137.5-9° (EtOH-H<sub>2</sub>O). XLIX refluxed 4 hrs. with excess NH<sub>2</sub>OH.HCl in excess pyridine gave the oxime (L) of XLIX, m. 204-5° (EtOH). L (100 mg.) in 3 cc. pyridine refluxed 2 hrs. under N with 100 mg. XXIX, dild. with 3 cc. H<sub>2</sub>O, refluxed 1 hr., and worked up in the usual manner gave a crude material which, treated 48 hrs. at room temp. with 1 cc. Ac<sub>2</sub>O and 2 cc. pyridine, yielded XXXV, m. 155-6° (tetrahydrofuran). p-MeOC<sub>6</sub>H<sub>4</sub>NHOCCH<sub>3</sub>:NOH (3 g.) added with stirring to 90% H<sub>2</sub>SO<sub>4</sub> at 50-70°, heated 10 min. at 80°, cooled, poured onto 250 cc. crushed ice, and filtered gave 1.9 g. 5-methoxysalatin (LII), m. 201-3° (H<sub>2</sub>O). LII refluxed in pyridine with excess NH<sub>2</sub>OH.HCl gave the oxime (LII) of LII, m. 236°. LII (9 g.) and 10 g. PCl<sub>5</sub> mixed under 100 cc. Et<sub>2</sub>O, the Et<sub>2</sub>O removed, and the residue heated to 90-100° in vacuo gave 3.5 g. sublimed 2,5-H<sub>2</sub>N(MeO)C<sub>6</sub>H<sub>3</sub>CNO (LIII), m. 98°. The LIII dissolved in excess dil. alkali and acidified yielded 2.1 g. 2,5-H<sub>2</sub>N(MeO)C<sub>6</sub>H<sub>3</sub>CN, m. 40°, which with Ac<sub>2</sub>O gave XXX, m. 179-80°. V, m. 284° (decompn.), was isolated from autoxidized I by the method of Soutarel (Dissertation, Paris, 1954). The compds. p-MeOC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub> and AcCH<sub>2</sub>CO<sub>2</sub>Et yielded by the method of Stephen, et al. (C.A. 42, 1591), 3-ethyl-6-methoxy-2-methyl-4-quinolinol, m. 293-5° (decompn.).

IT 482-04-2, Iboquine  
(preparation of)  
RN 482-04-2 CA  
CN Iboquine (6CI, 8CI) (CA INDEX NAME)





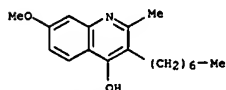
L9 ANSWER 22 OF 25 CA COPYRIGHT 2005 ACS ON STN (Continued)  
 IT 482-04-2, Iboquine 1140-40-5, 4-Quinololinol,  
 3-ethyl-6-methoxy-2-methyl- 111528-19-9, Iboquine lactam  
 (preparation of)

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 O-acyl derivs. seem to be limited to the curing of avian malaria and to have no practical clin. application. Below are the values of x in the chemotherapeutic index (1:x) by the Roehl test (i = inactive) for the compds. of type IIA. R2 = Me, R3 = C4H9, R4 = OH: R1 = H 2, MeO 16, EtO 2, C4H9O 1, C6H13 1, HO 1, Et2NCH2CH2O 1, MeS (R3 = C7H15) 8. R2 = Me, R3 = C7H15, R1 = MeO: R4 = OH 120, SH 16, Cl 1, SO3H 1, NHC(CH2CH2CH2)2 2, SCH2CH2NHC(CH2CH2)2 trace of activity. R2 = Me, R4 = OH, R1 = MeO: R3 = Pr (and allyl) 8, Bu (and crotyl) 16, Am 30, hexyl 120, heptyl 120, octyl 30, decyl 2, dodecyl 2. The compds. were in general prep'd by condensation of  $\beta$ -keto esters with arom. amines and ring closure to the 4-hydroxyquinolines by the Konrad-Limpach method (C.A. 25, 3999). Substituents could also be introduced into the 3-position by allyl rearrangement of the ethers of the 4-hydroxyquinolines. The 7-substituted compds. were prep'd. from m-substituted anilines by the K.-L. synthesis, which yielded mixts. of the 5- and 7-compds., with the latter predominating; in proving the structure of some of the 7-compds. by degradn. with KMnO4 to 4,2-R(AcNH)C6H3COCO2H, a new method of prep'g. substituted isatins, RC6H3.CO.CO.NH, by ring closure with H2SO4 was discovered. 4-Allyloxy-2-methylquinoline, from the 4-HO compd., CH2:CHCH2Br, and K2CO3 refluxed 12 h. in acetone, b.p. 5 153°, rearranged by heating 1 h. at 215° in 1-C10H7Me in a current of N to I, m. 271° (from acetone). 4-Hydroxy-7-methoxy-2-methylquinoline (III), needles from acetone, m. 249°, was prep'd. by refluxing m-anisidine and AcCOCH2CO2Et 1 h. in benzene and a drop of concd. HCl, removing the water as formed, cautiously evap'g. the benzene, dissolving the residue in 50 cc. 1-C10H7Cl, adding it dropwise to 200 cc. 1-C10H7Cl at 250° in such a way that the alc. formed could evap. off, heating 5 min. longer at 250°, cooling, filtering, and washing with ether; the yield of crude product, including that obtained by concg. the mother liquors and which was only partially sol. in alkali, was 47%. The III was isolated as the HCl salt, needles from aq. alc., m. 275° (decompn.), by dissolving 42 g. crude III in 250 cc. hot N HCl, adding 100 cc. 5 N HCl, and letting cool. The HCl filtrate from the III.HCl gave with K2CO3 a base, 39 g. of which, after washing with water and drying, was dissolved in 120 cc. hot water and 40 cc. 10 N KOH and slowly treated with 80 cc. more of 10 N KOH; the K salt which sep'd. on cooling was filtered, washed with 5 N KOH, dissolved in hot water (in which it partly hydrolyzed), treated with dil. HCl to complete soln. and acid reaction, and finally with K2CO3 soln., giving the 5-MeO isomer (IV) of III, m. 292° (from acetone). The crude III obtained from the concd. C10H7Cl mother liquor, repeatedly ext'd. with 10% NaOH and the insol. portion washed with water and dried, yielded the 4-(m-methoxyanilino) analog (V) of III, m. 208° (from acetone). III refluxed 1.5 h. with POC13 gave the 4-Cl compd., b.p. 150°, needles from ligroin, m. 90°, which with m-anisidine at 180° gave V. III and MgSO4 in water at 70° treated dropwise with dil. KMnO4 soln. yielded (2-acetamido-4-methoxyphenyl)glyoxylic acid, m. 182° (decompn.) (from AcOEt-C6H6), which, heated in small portions about 10 min. on a water bath with dil. H2SO4, gave 6-methoxyisatin, orange cryst. powder from glacial AcOH, m. 230°, degraded by warming in dil. NaOH with H2O2 to 2,4-H2N(MeO)C6H3CO2H, m. 176°. 4-Allyl ether of III, from III, CH2:CHCH2Br, and K2CO3 refluxed 15 h. in acetone, b.p. 5 146° and immediately solidifies; heated in 1-C10H7Me, it rearranges to the 3-allyl deriv. of III, m. 249° (from acetone). 4-Allyl ether of IV, similarly obtained in small yield, rearranges to the 3-allyl deriv. of IV, m. 263° (from acetone). 3-Crotyl deriv. of

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 ACCESSION NUMBER: 43:6477 CA  
 ORIGINAL REFERENCE NO.: 43:1415C-1,1416A-1,1417A-e  
 TITLE: A new type of compounds active against avian malaria  
 AUTHOR(S): Salzer, Walter; Timmler, Helmut; Andersag, Hans  
 SOURCE: Chemische Berichte (1948), 81, 12-19  
 CODEN: CHBEAM; ISSN: 0009-2940  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable  
 GI For diagram(s), see printed CA issue.  
 AB The chemotherapy of malaria has hitherto been based exclusively on compds. of pronouncedly basic character. The synthetic compds. furthermore have the common property that an amino group on the nucleus of a heterocycle is basically substituted. Under certain conditions some of these compds. (e.g. atebirin) can be cleaved into an aliphatic diamine and an acridone, which can be represented as the desmotropic 3-hydroxyacridine. These cleavage products of the atebirin series had hitherto always been found to be inactive, and the observation, in the course of investigations of quinoline compds., that certain 4-hydroxyquinoline compds. are therapeutically active in canaries infected with Plasmodium praecox was therefore very surprising. The 1st of these compds. was 3-allyl-4-hydroxy-2-methylquinoline (I), and in 1939-42, more than 100, most of them closely related, were studied, using the Roehl test as guide. A further advance was the observation that a 7-MeO substituent markedly improves the therapeutic index; other substituents at C-7 or MeO at other positions on the benzene ring, however, have an unfavorable influence and, in part, lead to completely inactive compds. The activity is already distinctly lower in the 7-EtO compound and has disappeared in the BuO and C6H13O compds.; on the other hand, the 7-MeS compound is again active. Changing the 4-HO group (except replacement by MeS) is accompanied by disappearance of activity; both etherification and introduction of basic or acid groups, CO2H, SO3H, halogen, etc., give inactive compds. It had been hoped that the more strongly acid HS group might result in easier resorption of the compds., but the index of the 4-HS compds. was in general poorer than that of the 4-HO compds. Variation of the 3-substituent was more successful. The 3-Me and 3-Et compds. were inactive but the index improved progressively from the Pr to the heptyl derivative, and then (octyl to dodecyl) became poorer. Unsaturated as effective as saturated alkyl groups but branching greatly decreases and generally completely destroys the activity. The aliphatic chain can, however, be interrupted by an O or S atom without decrease in activity. Thus, a butoxyethyl or ethoxybutyl compound has an activity of the same order of magnitude as a hexyl compound, although the index is poorer because of the greater toxicity. Attempts to impart water solubility by introduction of CO2H into a 3-alkyl substituent resulted in complete inactivation; the esters and hydrazides of such CO2H compds. were also almost inactive. Of the 2-substituted derivs., the 2-Me compound is the most potent. The most promising of the compds. prepared was 3-heptyl-4-hydroxy-7-methoxy-2-methylquinoline (endochin) (II), although its activity and that of its

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 III, m. 233°. 4-(Allyloxy)-2,6-dimethylpyridine, from the 4-HO compd. with CH2:CHCH2Br-b.p. 5 98°, rearranges to 3-allyl-4-hydroxy-2,6-dimethylpyridine (VI), m. 158-9° (from acetone); 3-crotyl analog, m. 152° (from acetone), prep'd. by rearrangement of 4-(crotyloxy)-2,6-dimethylpyridine, b.p. 5 94°; 4-(2-diethylaminoethyl) ether of VI, b.p. 5 0.6 132-4°. 4-Hydroxy-2-methyl-3-propylquinoline, from AcCHPrCO2Et and PhNH2, m. 253° (from EtOH). The following compds. (m.ps. given) were prep'd. by similar methods. 3-Alkyl-4-hydroxy-7-methoxy-2-methylquinolines: Pr (from m-anisidine and AcCHPrCO2Et) 265° (identical with the product obtained from the 3-allyl compd. in NaOH with H and Pt oxide), Bu 242° (from MeOH), iso-Bu 251°, iso-Am 219°, hexyl 215°, heptyl (II) 218°, octyl 207°, benzyl 270°, (3-carbomethoxypropyl) 179°, (4-phenoxybutyl) 200°, (2-butoxyethyl) 192°, (3-ethoxybutyl) 204°. 3-Butyl-4-hydroxyquinolines: 6-methoxy-2-Me 241°, 2-Et 185°, 2,7-di-Me 230°, 2,6-di-Me 215°, 7-methoxy-2,6-dimethyl 200°, 7-chloro-2-Me 163°. 7-Ethoxy-4-hydroxy-2-methylquinoline 250°. 3-Heptyl-4-hydroxy-2-methyl-7-methylmercaptoquinoline 178°. 1,2,3,4-Tetrahydro-9-hydroxy-6-methoxyacridine (from m-anisidine and 2-oxocyclohexanecarboxylic ester) 265° (given in the original as the 7-MeO compd.). 3-Heptyl-4,7-dihydroxy-2-methylquinoline, from the 7-Me ether refluxed 4 h. with HBr (d. 1.5), m. 200° (from EtOH); 3-Bu analog, m. 265°, gives with BuBr and K2CO3 in acetone 7-butoxy-3-butyl-4-hydroxy-2-methylquinoline, m. 263°. 3-Butyl-2-methyl-4-quinolinecarboxylic acid, from isatin, NaOH, and MeCOAM in aq. alc., m. 136°. 4-Chloro-3-heptyl-7-methoxy-2-methylquinoline, from the 4-HO compd. and POC13, b.p. 220°; 4-AcO compd., from the 4-HO compd. and AcCl, m. 94°; 4-( $\beta$ -carbomethoxypropionyloxy) compd., from the HO compd. heated a short time with ClCOCH2CH2CO2Me, m. 75°. 3-Heptyl-7-methoxy-2-methyl-4-quinoline-sulfonic acid, from the 4-chloroquinoline boiled 6 h. in aq. MeOH with NaHSO3, m. 280°. 3-Heptyl-4-mercapto-7-methoxy-2-methylquinoline, from the 4-HO compd. heated 12 h. at 100° with P2S5 in dioxane, m. 203° (from MeOH); 4-(2-diethylaminoethylmercapto) compd., from the 4-HS compd., Et2NCH2CH2Cl, and K2CO3 refluxed 12 h. in acetone, oil.

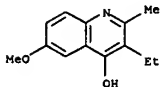
IT 4939-34-8, 4-Quinololinol, 3-heptyl-7-methoxy-2-methyl- (antimalarial action of)  
 RN 4939-34-8 CA  
 CN 4-Quinololinol, 3-heptyl-7-methoxy-2-methyl- (9CI) (CA INDEX NAME)



IT 4939-34-8, 4-Quinololinol, 3-heptyl-7-methoxy-2-methyl-  
 857758-85-1, 4-Quinololinol, 3-decyl-7-methoxy-2-methyl-  
 860230-48-4, 4-Quinololinol, 3-butyl-7-ethoxy-2-methyl-  
 860234-30-6, 4-Quinololinol, 3-dodecyl-7-methoxy-2-methyl-  
 860714-68-7, 4-Quinololinol, 7-methoxy-2-methyl-3-pentyl-  
 860714-95-0, 4-Quinololinol, 3-butyl-7-(hexyloxy)-2-methyl-  
 (antimalarial action of)  
 IT 3348-34-3, 4-Quinololinol, 3-butyl-6-methoxy-2-methyl-  
 330835-56-8, 4-Quinololinol, 3-butyl-2,8-dimethyl-

L9 ANSWER 23 OF 25 CA COPYRIGHT 2005 ACS on STN (Continued)  
 857574-54-0, 9-Acridinol, 1,2,3,4-tetrahydro-6-methoxy-  
 857762-30-2, 4-Quinololinol, 3-(2-butoxyethyl)-7-methoxy-2-methyl-  
 860205-58-9, 3-Quinolonebutyric acid, 4-hydroxy-7-methoxy-2-methyl-  
 ethyl ester 860230-56-4, 4-Quinololinol, 3-butyl-2,7-dimethyl-  
 860231-21-6, 4-Quinololinol, 3-benzyl-7-methoxy-2-methyl-  
 860232-26-4, 4-Quinololinol, 3-allyl-5-methoxy-2-methyl-  
 860233-43-8, 4-Quinololinol, 7-methoxy-2-methyl-3-(4-phenoxybutyl)-  
 860233-51-8, 4-Quinololinol, 3-isopentyl-7-methoxy-2-methyl-  
 860233-59-6, 4-Quinololinol, 3-isobutyl-7-methoxy-2-methyl-  
 860234-22-6, 4-Quinololinol, 3-(4-ethoxybutyl)-7-methoxy-2-methyl-  
 860426-06-8, Succinic acid, methyl (mono-) ester, ester with  
 3-heptyl-7-methoxy-2-methyl-4-quinolinol 860714-93-8,  
 4-Quinololinol, 3-butyl-7-chloro-2-methyl- 860714-97-2,  
 4-Quinololinol, 3-butyl-7-methoxy-2,6-dimethyl-  
 (prepn. of)

L9 ANSWER 24 OF 25 CA COPYRIGHT 2005 ACS on STN (Continued)  
 following showed no prophylactic action: 2,4-dihydroxyquinoline,  
 4-hydroxyquinoline, its 6- and 8-MeO deriva., 2-hydroxy-6-  
 methoxyquinoline, 1,2,3,4-tetrahydroacridone, and 2-methoxyacridone. The  
 effect of structure on the activity of the I is discussed.  
 IT 1140-40-5, 4-Quinololinol, 3-ethyl-6-methoxy-2-methyl-  
 (preparation of)  
 RN 1140-40-5 CA  
 CN 4-Quinololinol, 3-ethyl-6-methoxy-2-methyl- (6CI, 7CI, 8CI) (CA INDEX  
 NAME)



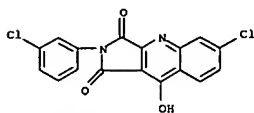
IT 1140-40-5, 4-Quinololinol, 3-ethyl-6-methoxy-2-methyl-  
 4939-34-8, 4-Quinololinol, 3-heptyl-7-methoxy-2-methyl-  
 854820-73-8, 1H-Cyclopenta[b]quinolin-9-ol, 7-ethoxy-2,3-dihydro-  
 854421-79-1, 1H-Cyclopenta[b]quinolin-9-ol, 2,3-dihydro-7-methoxy-  
 859320-23-3, 1H-Cyclopenta[b]quinolin-9-ol, 7-chloro-2,3-dihydro-  
 (preparation of)

L9 ANSWER 24 OF 25 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 42:7196 CA  
 ORIGINAL REFERENCE NO.: 42:1591h-1,1592a-f  
 TITLE: Tetrahydroacridones and related compounds as  
 antimalarials  
 AUTHOR(S): Stephen, J. M. L.; Tonkin, I. M.; Walker, James  
 CORPORATE SOURCE: Natl. Inst. Med. Research, London, UK  
 SOURCE: Journal of the Chemical Society, Abstracts (1947)  
 1034-9  
 CODEN: JCSAAZ; ISSN: 0590-9791

DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable  
 AB In the preparation of 1,2,3,4-tetrahydroacridones (I), 0.1 g.-mol. of the  
 appropriate aromatic primary amine and  $\beta$ -keto ester were mixed (with  
 warming, if necessary) and, after addition of 1 drop of concentrated  
 HCl, kept in a  
 partially evacuated desiccator several days at 37°; the crude  
 esters were cyclized by adding them slowly to a weight of boiling Ph2 4  
 times  
 that of the combined starting materials; the products usually  
 crystallized at  
 about 100° and the Ph2 was removed with ether. The min. effective  
 dose (mg./100 g. chick) is given in brackets. Derivs. of I (C.A.  
 numbering): 7-MeO, m. 313°, 86% [12.5]; 6-MeO, m. 309° [25],  
 results in 5% yield on heating 4,2-MeO(H2NC6H3CO2H and cyclohexanone 1  
 hr.  
 at 220-30° and 10.7 g. from m-MeOC6H4NH2 and Et  
 cyclohexanone-2-carboxylate, with crystallization of the mixture from  
 AcOH-concentrated  
 HCl; the AcOH-HCl mother liquors yield 1.4 g. of the 8-MeO derivative, m.  
 326°; 5-MeO, m. 286-8°, 60% [37.5]; 7-EtO, m.  
 292-3°, 87% [inactive]; 7-Cl, m. above 330°, 74% [100];  
 7-Me, m. above 330°, 40% [inactive]; 6,7-di-MeO, m. above  
 330°, 65% [inactive]; 7-methoxy-2-methyl, m. 346-7°, 40%  
 [inactive]; 6-methoxy-2-methyl, m. 324°, 58% [50];  
 5-methoxy-2-methyl, m. 270-3°, 62% [50]; 7-methoxy-4-methyl, m.  
 280-1°, 41% [62.5]; 6-methoxy-4-methyl, m. 277-8°, 23%  
 [about 25]; 5-methoxy-4-methyl, m. 245-6°, 24% [50];  
 7-methoxy-2-ethyl, m. 334°, 72% [inactive]; 6-methoxy-2-ethyl, m.  
 291°, 64% [100]; 5-methoxy-2-ethyl, m. 218-19°, 64%  
 [inactive]; (Et 2-o-methoxyanilino-5-ethyl-1-hexene-1-carboxylate, m.  
 60°); 7-methoxy-4-ethyl, m. 252-3°, 40% [100]. p-MeOC6H4NH2  
 and Et cyclohexanone-2-carboxylate give Et 2-p-methoxyanilino-1-  
 cyclopentene-1-carboxylate (II), m. 54-5°; 9-hydroxy-7-methoxy-2,3-  
 dihydro- $\beta$ -quinindene (III) (C.A. numbering m. above 330°, 59%  
 [37.5]; 7-Cl analog m. about 330°, 60% [31]; p-ETOC6H4NH2 gives the  
 p-ethoxyanilino analog of II, m. 53°; the 7-EtO analog of III m.  
 about 300°, 59% [inactive]. p-MeOC6H4NH2 and AcCHETCO2Et give 46%  
 4-hydroxy-6-methoxy-3-ethylquinoline, m. 290° [inactive]; 3-heptyl  
 analog m. 236-7°, 77% [inactive]. m-H2NC6H4OME and  
 AcCH(C7H13)CO2Et (7 days at 37°) and the product crystallized from MeOH  
 give 4-hydroxy-7-methoxy-3-heptylquinoline (endochin), m. 213-14°,  
 and 2.95 g. of the 5-MeO isomer, m. 219-20°; o-MeOC6H4NH2 gives 60%  
 of the 8-MeO derivative, m. 155-6° [about 100]. Methods are given for  
 the preparation of 2,4-O2N(MeO)C6H3CN, 2,4-O2N(MeO)C6H3CO2H,  
 4,2-MeO(H2N)C6H3CO2H, AcC(C7H14)CO2H, and AcCH(C7H15)CO2Et. The

L9 ANSWER 25 OF 25 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 41:37334 CA  
 ORIGINAL REFERENCE NO.: 41:7388d-1,7389a-1  
 TITLE: Some derivatives of oxanilide  
 AUTHOR(S): Price, Charles C.; Velzen, Bernard H.  
 CORPORATE SOURCE: Univ. of Illinois, Urbana  
 SOURCE: Journal of Organic Chemistry (1947), 12, 386-92  
 CODEN: JOCEAH; ISSN: 0022-3263  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable  
 OTHER SOURCE(S): CASREACT 41:37334  
 GI For diagram(s), see printed CA Issue.  
 AB Because 7-chloro-4-(4-diethylamino-1-methylbutylamino)quinoline possesses  
 a high antimalarial activity, the synthesis of a biquinoline analog such  
 as I is attempted with oxanilide as intermediate. A mixture of 31.9 g.  
 m-ClC6H4NH2 (II) and 19 g. (CO2Et)2 (III) is heated to 120° and 1  
 g. Na added in small portions with stirring. After 15 min. the mixture  
 is  
 cooled and 83% m,m'-dichlorooxanilide (IV), m. 201-2°, is isolated.  
 When 63.8 g. II and 365 g. III are refluxed 2 h., 91 g. Et  
 m-chlorooxanilate, needles, m. 113-14°, is obtained. Refluxing a  
 mixture of 10 g. IV in 15 cc. C6H6 2 h. with 20 g. PCl5 gives 91% imido  
 chloride (V), yellow needles, m. 116-16.5°. To 3.1 g. powdered Na in  
 450 cc. PhMe, 49.5 g. CH2(CO2Et)2 (VI) is slowly added at 90°, the  
 mixture refluxed 0.5 h., and to the CHNA(CO2Et)2 thus formed 24 g. V in  
 200  
 cc. PhMe is slowly added at 60-70°. The mixture is heated 4 h. at  
 85-90° and 1 h. at 100-5°, poured into H2O, filtered, and  
 the PhMe layer separated. Concentration of the latter and distillation  
 of the excess VI at  
 2 mm. leave 21 g. of a mixture (VII), m. 120-65°. Extraction of VII with  
 boiling EtOH leaves a compound, C19H14Cl2N2O4 (VIII), m. 191-2°. From the EtOH filtrate, 7 g. of a compound, C28H30Cl2N2O8 (IX), m.  
 136-7°, is isolated. Cyclization by refluxing 5 g. IX in Ph2O 1 h.  
 gives a compound, C22H12Cl2N2O5 (X), crystals from AcOH, m. 295-6°. When 2 g. IX is refluxed 1 h. with 25 cc. POCl3, 1 g. VIII, yellow  
 needles, m. 191-2°, is formed. Treatment of 2 g. IX with 15 cc.  
 concentrated H2SO4 at room temperature gives 4,2-Cl(H2N)C6H3SO3H, fine  
 needles, m.  
 310-30°, which when treated with Br in H2O gives  
 2,4,6-tribromo-3-chloroaniline, m. 124-5°. Gentle boiling of 5 g.  
 VIII 1 h. with 50 cc. H2O containing 1.99 g. NaOH, extracting the cooled  
 reaction  
 mixture with ether, and boiling the residue of the dried ether extract  
 with 2  
 cc. Ac2O give m-ClC6H4NHAc, m. 71-2°. Acidification of the alkaline  
 solution with HCl gives m-ClC6H4CONHC(OH):CHCO2H.0.5H2O, m. 120-2°. Cyclization of 2 g. VIII by refluxing it 10 min. with 20 cc. Ph2O gives  
 1.5 g. of a compound, C17H8Cl2N2O3 (XI), yellow crystals, m. above  
 350°. Hydrolysis of X with 10% NaOH gives m-ClC6H4NH2 on extraction  
 with ether while from the alkaline solution a compound, C12H8O4NCl (XII)  
 (given as  
 C12H8ONCl by mistake in original), rosettes, m. 306-9°, is  
 isolated. When a mixture of 64 g. VI and 25.5 g. II is heated at  
 165-75° until 9 g. EtOH is distilled off, 10 g. m,m'-  
 dichloromalonanilide (XIII), plates from EtOH, m. 165-6°, is  
 obtained. From the mother liquor, 66.7% EtO2CCH2CONHC6H4Clm (XIV),  
 plates, m. 75-6°, is isolated. Attempts to cyclize 5 g. XIV by  
 heating it 25 min. at 250° give 3.7 g. XIII. III (0.1 mol.), 0.2  
 mol. p-O2NC6H4NH2 (XV), and 0.5 g. Na are heated with stirring, giving

- L9 ANSWER 25 OF 25 CA COPYRIGHT 2005 ACS on STN (Continued)  
 p,p'-dinitrooxanilide (XVI), m. 359° (cor.). When a mixt. of 12.3 g. XVI and 15.4 g. PCl5 is heated 0.5 h. at 180-200° and 150 cc. dry C6H6 is added to the cooled reaction mixt., 9 g. cryst. material is obtained and extd. with boiling dioxane, leaving 2 g. unchanged XVI.
- From the filtrate, 6.2 g. imido chloride (XVII) of XVI, m. 239-41°, is isolated. In a 2nd expt., 68% XVII is obtained. In an attempt to prep. p,p'-dinitrodithiooxanilide (XVIII) by heating XVI with P2S5 according to Reissert (Ber. 37, 3708(1904)), a compd., probably p,p'-diaminodithiooxanilide, sintering at 180° and m. 204°, is obtained. When to 2 g. KOH in 25 cc. hot abs. EtOH satd. with H2S, 2 g. XVII is added, the mixt. refluxed 40 min. and allowed to stand overnight after addn. of 100 cc. 5% NaOH, a red ppt., m. 190-200°, seps. upon satn. with CO2 but cannot be recrystd. An attempt to prep. XVIII by stirring a mixt. of 6.07 g. XV in 150 cc. abs. EtOH, 4.88 g. CS2, and 3 g. SNO 24 h. at room temp. failed. Refluxing 29.2 g. III and 27.6 g. XV 5 h. gives 24% Et p-nitrooxanilate (XIX), m. 170-1°. When 10 g. XIX in 5.7 g. p-H2NC6H4NEt2 is heated 0.5 h. at 180°, 67% p-dimethylamino-p'-nitrooxanilide (XX), red needles from PhNH2, m. 309-9.5°, is obtained. When a mixt. of 11.7 g. PCl5 and 9 g. XX is heated 0.5 h. at 140°, a compd., m. 170-200°, is obtained which cannot be recrystd. A similar compd., m. 160-90°, is obtained when 5.8 g. PCl5 and 4.5 g. XX are refluxed 2 h. in 100 cc. C6H6.
- An attempt to prep. p-dimethylamino-p'-nitrodithiooxanilide by refluxing 10 g. XX with 5 g. P2S5 in 200 cc. xylene failed.
- IT 860189-51-1, 2H-Pyrrolo[3,4-b]quinoline-1,3-dione, 6-chloro-2-(m-chlorophenyl)-9-hydroxy- (preparation of)
- RN 860189-51-1 CA
- CN 2H-Pyrrolo[3,4-b]quinoline-1,3-dione, 6-chloro-2-(m-chlorophenyl)-9-hydroxy- (SCI) (CA INDEX NAME)

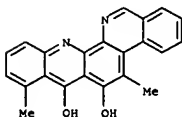


- IT 860189-51-1, 2H-Pyrrolo[3,4-b]quinoline-1,3-dione, 6-chloro-2-(m-chlorophenyl)-9-hydroxy- 860206-08-2, 3-Quinolinecarboxylic acid, 2-acetyl-7-chloro-4-hydroxy- (preparation of)

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L13 ANSWER 1 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 126:220001 CA  
 TITLE: Complexation of iron(III) and manganese(II) with some ligands and the analysis of their salts and alloys  
 AUTHOR(S): Ali, Abd-Elhafeez E.  
 CORPORATE SOURCE: Chemistry Department, Faculty of Science at Sohag, Egypt  
 SOURCE: Aswan Science & Technology Bulletin (1996), 17, 117-134  
 CODEN: ASTBEQ; ISSN: 1110-0184  
 PUBLISHER: Faculty of Science  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Some intensely colored Mn(II)-L1-tetraiodofluorescein and Fe(III)-L1-2',7'-dichlorofluorescein ternary complexes were studied, where L1 is o-phenanthroline or bathophenanthroline. The molar ratios for these complexes are Mn(II):L1:L2 = 1:2:1 and Fe(III):L1:L2 = 1:2:2, where L2 is fluorescein derivative. The formula [Mn(L1)2]2+ [I4F1COO-] and [Fe(L1)2]3+[Cl2F1COO-] are proposed. The effect of substituent groups of the L1 and L2 ligands on the complexing activity with Mn(II) and Fe(III) was studied. The selectivity of the proposed methods for the anal. of salts and alloys of the applied metals was also examined. The interferences of the iron(III) and copper(II) during the anal. of their corresponding alloys were eliminated. High sensitive and accurate methods for the spectrophotometric anal. of salts and alloys of the iron and the manganese were developed.  
 IT 183429-05-2, 6,7-Dihydroxy-5,8-dimethyldibenzo[b,i][1,10]phenanthroline  
 RL: RCT (Reactant); RACT (Reactant or reagent) (complexation of iron(III) and manganese(II) with phenanthroline derivs. and fluorescein derivs.)  
 RN 183429-05-2 CA  
 CN Dibenzo[b,i][1,10]phenanthroline-6,7-diol, 5,8-dimethyl- (9CI) (CA INDEX NAME)



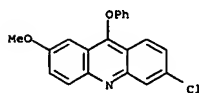
L13 ANSWER 3 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 126:59875 CA  
 TITLE: Preparation of beta-heterocyclized-alpha, beta-unsaturated ketone derivatives as inhibitors of interleukin 1 production  
 INVENTOR(S): Tanaka, Masayuki; Okita, Makoto; Miyamoto, Mitsuki; Kaneko, Toshihiko; Kawahara, Tetsuya; Akamatsu, Keishi; Chiba, Kenichi; Obashi, Hiroshi; Sakurai, Hideki; Abe, Shinya; Kobayashi, Seiichi; Yamana, Takashi  
 PATENT ASSIGNEE(S): Eisai Co., Ltd., Japan  
 SOURCE: PCT Int. Appl., 254 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE     |
|------------|------|----------|-----------------|----------|
| WO 9636608 | A1   | 19961121 | WO 1996-JP1330  | 19960520 |

<-- W: CA, US  
 RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE  
 JP 08311032 A2 19961126 JP 1995-142394 19950518  
 <-- PRIORITY APPLN. INFO.: JP 1995-142394 A 19950518

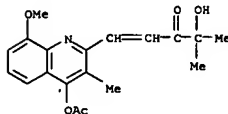
OTHER SOURCE(S): MARPAT 126:59875  
 GI For diagram(s), see printed CA Issue.  
 AB  $\alpha,\beta$ -Unsaturated ketone derivs. represented by general formula RCH=CHCOR1 [R = Q, Q1: wherein Z = NH, O, S; ring B = an optionally substituted aromatic ring; R2 = H, halo, optionally halogenated lower alkyl, etc.; R3 = H, optionally halogenated lower alkyl, cycloalkyl optionally having heteroatom(s), alkoxyalkyl, optionally substituted aryl, optionally substituted heteroaryl, etc.; R1 = CR4R5R6; wherein R4, R5 = H, optionally halogenated lower alkyl, etc.; R6 = H, optionally halogenated lower alkyl, cycloalkyl optionally having heteroatom(s), optionally substituted aryl, optionally substituted heteroaryl, etc.] or pharmacol. acceptable salts thereof, which are useful for the prevention and treatment of interleukin 1 production-related diseases, e.g. inflammation, are prepared. Thus, 1.68 g 7-ethyl-4-methoxymethoxy-3,5,8-trimethoxy-2-quinolinecarboxaldehyde and 1.0 g 3-hydroxy-3-methyl-2-butanone were dissolved in MeOH, treated with 0.21 g LiOH.H2O and heated at 50-60° for 1 h to give, after treatment of the product with 1 N aqueous HCl in EtOAc, the title quinolinylbutenone derivative (I; R7 = R10 = OMe, R8 = H, R9 = Et, R11 = Me2OH). The latter compound and I (R7 = R9 = R10 = H, R8 = Cl, R2 = Me) showed IC50 of 1.08 and <0.1 nM, resp., for inhibiting the production of interleukin 1 $\alpha$  in human peripheral monocyte and 0.92 and <0.1 nM, resp., for inhibiting the production of interleukin 1 $\beta$  in human peripheral monocyte.  
 IT 185206-50-2P

L13 ANSWER 2 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 126:171885 CA  
 TITLE: Synthesis of a 9-acridinyl nonapeptide containing the DNA recognizing region of 434 phage repressor protein  
 AUTHOR(S): Takenaka, Shigeori; Iwamasa, Kenji; Takagi, Makoto; Nishino, Norikazu; Mihara, Hisakazu; Fujimoto, Tutomu  
 CORPORATE SOURCE: Dep. Biochem. Eng. Sci., Kyushu Inst. Technol., Izuka, 820, Japan  
 SOURCE: Journal of Heterocyclic Chemistry (1996), 33(6), 2043-2046  
 CODEN: JHCTAD; ISSN: 0022-152X  
 PUBLISHER: HeteroCorporation  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB A peptide-intercalator conjugate was synthesized by connecting 6-chloro-2-methoxyacridine (Acr) with a Gln-Gln-Ser-Ile-Glu-Gln-Leu-Glu-Asn (9mer) sequence representing the DNA recognizing region of 434 phage repressor protein. This conjugate, H-9mer-NH(CH2)3NH-9-Acr, binds to DNA in spite of its anionic character with the aid of the intercalator.  
 IT 7478-26-4  
 RL: RCT (Reactant); RACT (Reactant or reagent) (synthesis of acridinyl nonapeptide containing DNA recognizing region of 434 phage repressor protein)  
 RN 7478-26-4 CA  
 CN Acridine, 3-chloro-7-methoxy-9-phenoxy- (9CI) (CA INDEX NAME)

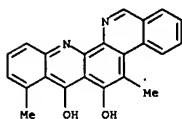


REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

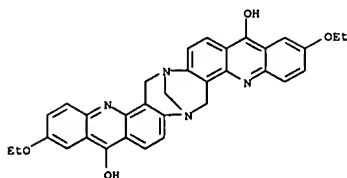
L13 ANSWER 3 OF 400 CA COPYRIGHT 2005 ACS on STN (Continued)  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of  $\beta$ -heterocyclized- $\alpha,\beta$ -unsatd. ketone derivs. as inhibitors of interleukin 1 prodn.)  
 RN 185206-50-2 CA  
 CN 1-Penten-3-one, 1-[4-(acetyloxy)-8-methoxy-3-methyl-2-quinolinyl]-4-hydroxy-4-methyl- (9CI) (CA INDEX NAME)



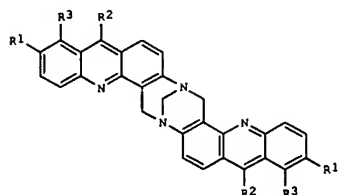
L13 ANSWER 4 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 125:346396 CA  
 TITLE: Iron(III) and manganese(II) complexes of orthophenanthroline and fluorescein derivatives and their use in the analysis of their salts and alloys Ali, A. E.  
 AUTHOR(S): Chemistry Department, Faculty Science, Sohag, Egypt  
 CORPORATE SOURCE: Egyptian Journal of Chemistry (1996), 39(5), 491-499  
 SOURCE: CODEN: EGJCA3; ISSN: 0367-0422  
 PUBLISHER: National Information and Documentation Centre  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB The reactions between Fe(III) and Mn(II) with o-phenanthroline (phen), bathophenanthroline (bathophen), neocuproine (I), bathocuproine (II), or 6,7-dihydroxy-5,8-dimethyldibenzo[b,i]phenanthroline (III) as primary ligands (L1) and fluorescein (FlCOOH), 2',7'-dichlorofluorescein (Cl2FlCOOH) or tetraiodofluorescein (I4FlCOOH) as secondary ligand (L2) were studied. No color Fe(III)L1L2 ternary complexes formed in case of o-phenanthroline derivs. I, II, and III. No reaction took place between Fe3+, the primary ligands and fluorescein, while 2',7'-dichlorofluorescein formed an intensely color ternary complex with Fe3+ and o-phenanthroline or bathophenanthroline (L1). Mn(II) reacts with phen or bathophen and I4FlCOOH to form orange color ternary complexes in water-ethanol medium. Some spectral properties of Fe and Mn complexes are shown.  
 Determination of Fe and Mn in alloys by using the systems is demonstrated.  
 IT 183429-05-2  
 RL: ARG (Analytical reagent use); RCT (Reactant); ANST (Analytical study);  
 RACT (Reactant or reagent); USES (Uses)  
 (determination of iron(III) and manganese(II) by extraction-spectrophotometry using phenanthroline and fluorescein derivs.)  
 RN 183429-05-2 CA  
 CN Dibenzo[b,i][1,10]phenanthroline-6,7-diol, 5,8-dimethyl- (9CI) (CA INDEX NAME)



L13 ANSWER 5 OF 400 CA COPYRIGHT 2005 ACS on STN (Continued)

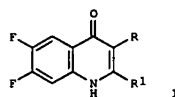


L13 ANSWER 5 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 125:328682 CA  
 TITLE: Synthesis of polyfunctionalized Troeger's base analogs  
 derived from ethacridine (6,9-diamino-2-ethoxyacridine)  
 AUTHOR(S): Tatibouet, A.; Demeunynck, M.; Lhomme, J.  
 CORPORATE SOURCE: LEDSS, Univ. J. Fourier, Grenoble, 38041, Fr.  
 SOURCE: Synthetic Communications (1996), 26(23), 4375-4395  
 CODEN: SYNCV; ISSN: 0039-7911  
 PUBLISHER: Dekker  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 125:328682  
 GI

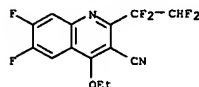


AB In the search for chemical probes of DNA conformations, an efficient synthesis is reported of new Troeger's base analogs I (R1 = OH, EtO; R2 = NH2, OH, Cl, n-PrNH, HO(CH2)2NH, H2N(CH2)3NH, and R2,R3 = OCH2OCH2) derived from polyfunctionalized aminoacridines treated with a stoichiometric amount of formaldehyde in trifluoroacetic acid. For the more sensitive aminoacridines, the Troeger's bases were obtained by nucleophilic substitution of the chloro group of the "pre-formed" corresponding Troeger's base.  
 IT 183484-83-5P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (synthesis of polyfunctionalized Troeger's base analogs derived from ethacridine)  
 RN 183484-83-5 CA  
 CN 6H,16H-7,17-Methano[1,5]diazocino[2,3-c:6,7-c']diacridine-10,20-diol, 2,12-diethoxy- (9CI) (CA INDEX NAME)

L13 ANSWER 6 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 125:328482 CA  
 TITLE: Synthesis of 2-(fluoroalkyl)-6,7-difluoro-4-oxoquinoline-3-carboxylic acid derivatives  
 Aizikovitch, A. Ya.; Charushin, V. N.; Chupakhin, O. N.  
 AUTHOR(S): Ural'skii Gosudarstvennyi Universitet, Russia  
 CORPORATE SOURCE: Khimiko-Farmatsevticheskii Zhurnal (1996), 30(8), 43-45  
 SOURCE: CODEN: KHFZAN; ISSN: 0023-1134  
 PUBLISHER: Izdatel'stvo Folium  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian  
 GI



AB The title compds., key intermediates in the synthesis of bactericidal fluoroquinolones, were prepared. Thus, acylation of 3,4-difluoroaniline with polyfluoroalkanecarboxylic acid anhydrides, followed by transformation of the resulting anilides into imidoyl chlorides, subsequent reaction with malonic ester, and thermal ring closure yielded I (R = COOEt; R1 = CF3, CF2CHF2). Also prepared was I (R = CN; R1 = CF2CHF2).  
 IT 183274-18-2P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of difluoroalkoxy(polyfluoroalkyl)quinolinecarboxylic acid derivs.)  
 RN 183274-18-2 CA  
 CN 3-Quinolinecarbonitrile, 4-ethoxy-6,7-difluoro-2-(1,1,2,2-tetrafluoroethyl)- (9CI) (CA INDEX NAME)



L13 ANSWER 7 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 125:196381  
 TITLE: Preparation of pseudopeptides containing trifluoromethyl substituted 2-azabicyclooctanes for treatment of retroviral infections.  
 INVENTOR(S): Raddatz, Siegfried; Wild, Hanno; Haeblich, Dieter; Roeben, Wolfgang; Hansen, Jutta; Paessens, Arnold  
 PATENT ASSIGNEE(S): Bayer A.-G., Germany  
 SOURCE: Eur. Pat. Appl., 27 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO.  | DATE     |
|---|------|----------|------------------|----------|
| EP 720988   | A1   | 19960710 | EP 1995-120371   | 19951222 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE |      |          |                  |          |
| DE 19500122   | A1   | 19960711 | DE 1995-19500122 | 19950104 |
| JP 08259534   | A2   | 19961008 | JP 1995-351260   | 19951227 |
| AU 9540684  | A1   | 19960711 | AU 1995-40684    | 19951228 |
| CA 2166372  | AA   | 19960705 | CA 1995-2166372  | 19951229 |
| HU 74806  | A2   | 19970228 | HU 1995-3928     | 19951229 |
| FI 9600014  | A    | 19960705 | FI 1996-14       | 19960102 |
| NO 9600017  | A    | 19960705 | NO 1996-17       | 19960103 |
| ZA 9600026  | A    | 19960710 | ZA 1996-26       | 19960103 |
| ZA 9600027  | A    | 19960710 | ZA 1996-27       | 19960103 |
| CN 1134941  | A    | 19961106 | CN 1996-100928   | 19960104 |
| PRIORITY APPLN. INFO.: DE 1995-19500122 A 19950104                    |      |          |                  |          |

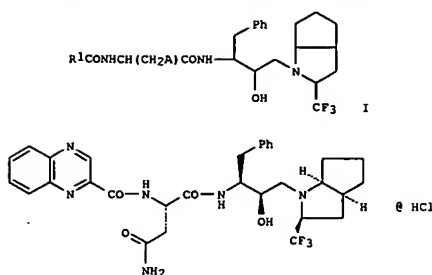
OTHER SOURCE(S): MARPAT 125:196381  
 GI

L13 ANSWER 8 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 125:142755  
 TITLE: Pyridazinoquinoline compounds  
 INVENTOR(S): Bare, Thomas Michael; Chapdelaine, Marc Jerome; Davenport, Timothy Wayne; Empfield, James Roy; Garcia-Davenport, Laura Enid; Jackson, Paul Francis; McKinney, Jeffrey Alan; McLaren, Charles David; Sparks, Richard Bruce  
 PATENT ASSIGNEE(S): Zeneca Limited, UK  
 SOURCE: PCT Int. Appl., 214 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

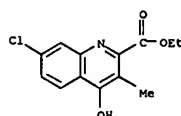
| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|---|------|----------|-----------------|----------|
| WO 9615127  | A1   | 19960523 | WO 1995-GB2613  | 19951108 |
| W: AL, AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK |      |          |                 |          |
| RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG  |      |          |                 |          |
| CA 2202135  | AA   | 19960523 | CA 1995-2202135 | 19951108 |
| AU 9538132  | A1   | 19960606 | AU 1995-38132   | 19951108 |
| AU 705938   | B2   | 19990603 |                 |          |
| EP 790996   | B1   | 20020327 | EP 1995-936046  | 19951108 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE   |      |          |                 |          |
| CN 1171787  | A    | 19980128 | CN 1995-197220  | 19951108 |
| CN 1067685  | B    | 20010627 |                 |          |
| JP 10508617   | T2   | 19980825 | JP 1995-515817  | 19951108 |
| AT 215085   | E    | 20020415 | AT 1995-936046  | 19951108 |
| FI 9701971  | A    | 19970512 | FI 1997-1971    | 19970507 |
| NO 9702153  | A    | 19970709 | NO 1997-2153    | 19970509 |
| NO 308899   | B1   | 20001113 |                 |          |
| US 6214826  | B1   | 20010410 | US 1999-365562  | 19990802 |
| PRIORITY APPLN. INFO.: GB 1994-22894 A 19941112   |      |          |                 |          |
| WO 1995-GB2613 W 19951108   |      |          |                 |          |
| US 1997-836082 B1 19970502  |      |          |                 |          |
| US 1998-128038 B1 19980803  |      |          |                 |          |

OTHER SOURCE(S): MARPAT 125:142755  
 GI For diagram(s), see printed CA Issue.  
 AB Pyridazinoquinolines and related compds. I [ring A is an orthofused aromatic or heteroarom. five- or six-membered ring; R = halo, C1-C4 alkyl, NO2, etc.; R1 = H, C1-C6 alkyl, (CH2)nL, where n = 0-6, L = (un)substituted aryl or heteroaryl or n > 0, L = OH, OAc, halo, CF3, etc.; R2 = H,

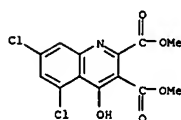
L13 ANSWER 7 OF 400 CA COPYRIGHT 2005 ACS on STN (Continued)



AB Title compds. {I: A = cyano, CONH2; R1 = (substituted) quinolin-2-yl, quinoxalin-2-yl, 3-pyridylmethoxy, Ph(OCH2)n; n = 0, 1}, were prepared Thus, title compound (II), prepared via solution phase coupling reactions, inhibited HIV-1 protease with IC50 = 1.8 + 10-11 M.  
 IT 180605-61-2  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation of pseudopeptides containing trifluoromethyl substituted 2-azabicyclooctanes for treatment of retroviral infections)  
 RN 180605-61-2 CA  
 CN 2-Quinolinedicarboxylic acid, 7-chloro-4-hydroxy-3-methyl-, ethyl ester (9CI) (CA INDEX NAME)



L13 ANSWER 8 OF 400 CA COPYRIGHT 2005 ACS on STN (Continued)  
 (CH2)nL; R3 = H, acyl, alkyl, etc.; R4n = bond or H2; R5 = H, C1-C6-alkyl or alkylaryl] or pharmaceutical compns. contg. them were prepd. for the treatment of neurol. disorders. Thus, di-Me 7-chloro-4-hydroxy-2,3-quinolinedicarboxylate was reacted with 2-hydroxyethylhydrazine and the mixt. treated with N-methylglucamine to afford 374  
 7-chloro-1-hydroxy-3-(2-hydroxyethyl)-3,4,5,10-tetrahydropyridazino[4,5-b]quinoline-4,10-dione. The quinolinedicarboxylate substrate was prepd. from Me 2-amino-4-chlorobenzoate and di-Me acetylenedicarboxylate. Compds. I reduced ischemic damage, e.g., 7-chloro-4-hydroxy-5,10-dihydro-2-p-tolylpyridazino[4,5-b]quinolin-1-one at an i.v. dose of 10 mg/kg/h caused an infarct % vol. change of -42% while a 5.0 mg/kg/h i.v. dosage caused a -8% redn.  
 IT 147494-03-9  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation of pyridazinoquinolines)  
 RN 147494-03-9 CA  
 CN 2,3-Quinolinedicarboxylic acid, 5,7-dichloro-4-hydroxy-, dimethyl ester (9CI) (CA INDEX NAME)



L13 ANSWER 9 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 125:142578 CA  
 TITLE: Pyridopyrimidones, quinolines and fused  
 N-heterocycles  
 INVENTOR(S): as bradykinin antagonists.  
 Oku, Teruo; Kayakiri, Hiroshi; Satoh, Shigeki; Abe,  
 Yoshito; Sawada, Yuki; Inoue, Takayuki; Tanaka,  
 Hirokazu  
 PATENT ASSIGNEE(S): Fujisawa Pharmaceutical Co., Ltd., Japan  
 SOURCE: PCT Int. Appl., 263 pp.  
 CODEN: PIXX02  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

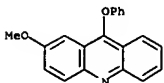
| PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE       |
|--|------|----------|-----------------|------------|
| WO 9613485   | A1   | 19960509 | WO 1995-JP2192  | 19951025   |
| W: AU, CA, CN, HU, JP, KR, MX, RU, US                              |      |          |                 |            |
| RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE |      |          |                 |            |
| CA 2203659   | AA   | 19960509 | CA 1995-2203659 | 19951025   |
| AU 9537536   | A1   | 19960523 | AU 1995-37536   | 19951025   |
| AU 705883  | B2   | 19990603 |                 |            |
| EP 807105  | A1   | 19971119 | EP 1995-935563  | 19951025   |
| EP 807105  | B1   | 20040616 |                 |            |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE  |      |          |                 |            |
| CN 1168667   | A    | 19971224 | CN 1995-196602  | 19951025   |
| JP 10507764  | T2   | 19980728 | JP 1995-514166  | 19951025   |
| AT 269310  | E    | 20040715 | AT 1995-935563  | 19951025   |
| ES 2218554   | T3   | 20041116 | ES 1995-935563  | 19951025   |
| US 5994368   | A    | 19991130 | US 1997-809416  | 19970425   |
| PRIORITY APPL. INFO.:  |      |          | GB 1994-21684   | A 19941027 |
|  |      |          | GB 1995-12339   | A 19950616 |
|  |      |          | WO 1995-JP2192  | W 19951025 |

OTHER SOURCE(S): MARPAT 125:142578  
 GI

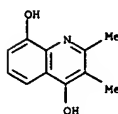
\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The invention relates to title compds. I [Z = group Q1 or Q2; X1 = N or CR1; X2 = N or CR9; X3 = N or CR2; R1 = alkyl; R2 = H, (un)substituted alkyl, alkoxy, halo, aryl, amino, etc.; R3 = H, alkyl, alkoxy, halo; R4 = alkyl, alkoxy, halo; R5 = OH, nitro, (un)substituted alkoxy, substituted piperazinyl, NR6R7; R6 = H, alkyl; R7 = H, alkoxycarbonyl, (un)substituted aryl, carbamoyl, -(AA)COQR8, -(AA)R10; R8 = (un)substituted arylthio,

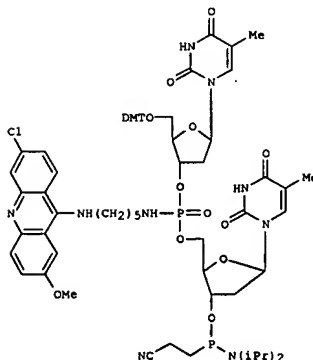
L13 ANSWER 10 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 125:3431 CA  
 TITLE: Frameshift mutagenicity and DNA intercalation of 9-amino-2-hydroxyacridine, a rat liver S9 metabolite of 9-aminoacridine  
 AUTHOR(S): Tomosaka, Hideyuki; Anzai, Kentaro; Hasegawa, Eietsu; Horigome, Tsuneyoshi; Omata, Saburo  
 CORPORATE SOURCE: Dep. Chem., Fac. Sci., Sci. Univ. Tokyo, Tokyo, 162, Japan  
 SOURCE: Bioscience, Biotechnology, and Biochemistry (1996), 60(4), 714-16  
 CODEN: BBBIEJ; ISSN: 0916-8451  
 PUBLISHER: Japan Society for Bioscience, Biotechnology, and Agrochemistry  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB 9-Amino-2-hydroxyacridine, a rat liver S9 metabolite of 9-aminoacridine (9-AA), was synthesized, and found to have lower frameshift mutagenicity and stronger DNA binding affinity than 9-AA.  
 IT 61078-20-4P  
 RL: BPN (Biosynthetic preparation); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)  
 (frameshift mutagenicity and DNA intercalation of 9-amino-2-hydroxyacridine, a rat liver S9 metabolite of 9-aminoacridine)  
 RN 61078-20-4 CA  
 CN Acridine, 2-methoxy-9-phenoxy- (6CI, 7CI, 9CI) (CA INDEX NAME)



L13 ANSWER 9 OF 400 CA COPYRIGHT 2005 ACS on STN (Continued)  
 arylloxy, arylamino, heterocyclylthio, heterocyclylamino, etc.; R9 = H, alkyl; R10 = H, acylbiphenyl; A = alkylene; (AA) = amino acid; Y = O, NR11; R11 = H, N-protective group], and pharmaceutically acceptable salts thereof, processes for their prep., pharmaceutical compns., and therapeutic use in the prevention and/or the treatment of bradykinin-mediated diseases. Such diseases include allergy, inflammation, autoimmune disease, shock, and pain. For instance, amidation of 8-[3-(N-glycyl-N-methylamino)-2,6-dichlorobenzyloxy]-2-methylquinoline with [E]-3-[6-(ethoxycarbonyl)-3-pyridyl]acrylic acid [prepn. given] using EDC and HOBT in DMF gave title compd. II. The similarly prep. title compd. III.HCl gave 100% inhibition of [3H]-bradykinin binding to rat ileum receptors in vitro at 10-6 M.  
 IT 179626-01-4P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (intermediate; preparation of pyridopyrimidones, quinolines, and fused N-heterocycles as bradykinin antagonists)  
 RN 179626-01-4 CA  
 CN 4,8-Quinolinediol, 2,3-dimethyl- (9CI) (CA INDEX NAME)



L13 ANSWER 11 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 124:261561 CA  
 TITLE: Novel Phosphoramidite Monomer for the Site-Selective Incorporation of a Diastereochemically Pure Phosphoramidate to Oligonucleotide  
 AUTHOR(S): Endo, Masayuki; Komiya, Makoto  
 CORPORATE SOURCE: Graduate School of Engineering, University of Tokyo, Tokyo, 113, Japan  
 SOURCE: Journal of Organic Chemistry (1996), 61(6), 1994-2000  
 CODEN: JOCEAH; ISSN: 0022-3263  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI

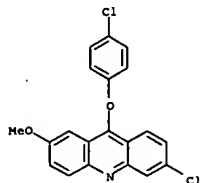


AB Diastereochem. pure dithymidine phosphoramidates, e.g. I, were prepared and selectively incorporated into synthetic oligodeoxyribonucleotides by a phosphoramidite technique. By using the terminal amino residues bound to the chiral phosphoramidates, various functional residues have been attached to the oligonucleotides in stereospecific ways. No racemization takes place during these procedures. The dependence of the duplex- and triplex-forming activities of these tethered and functionalized oligodeoxyribonucleotides on the diastereochem. of the phosphoramidate is shown.  
 IT 115960-63-9  
 RL: RCT (Reactant); RACT (Reactant or reagent)

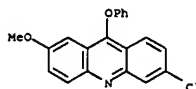


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L13 ANSWER 11 OF 400 CA COPYRIGHT 2005 ACS on STN (Continued)  
 (prepn. of oligodeoxyribonucleotide aminopentylphosphoramidate  
 duplexes and triplexes)  
 RN 115960-63-9 CA  
 CN Acridine, 6-chloro-9-(4-chlorophenoxy)-2-methoxy- (9CI) (CA INDEX NAME)



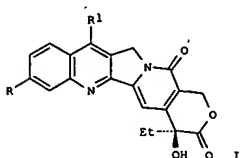
L13 ANSWER 12 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 124:232403 CA  
 TITLE: Synthesis and DNA photo-cleaving activity of novel heterocyclic N-oxide-acridine hybrid molecules  
 AUTHOR(S): Sako, Magoichi; Takeda, Yoshifumi; Hirota, Kosaku; Maki, Yoshifumi  
 CORPORATE SOURCE: Gifu Pharmaceutical University, Gifu, 602, Japan  
 SOURCE: Heterocycles (1996), 42(1), 31-4  
 CODEN: HTCYAM; ISSN: 0385-5414  
 PUBLISHER: Japan Institute of Heterocyclic Chemistry  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB The novel DNA photo-cleaver consisting of the heterocyclic N-oxide, which is an efficient photochem. generator of hydroxyl radicals, an acridine intercalator, and an amide-type methylene linker was designed and synthesized. The preliminary DNA strand-breakage study of the hybrid compds. demonstrated that the DNA photo-cleaving activity of the parent heterocyclic N-oxide increased by linking with the acridine intercalator. The target compds. were derivs. of pyrimido[5,4-g]pteridine-2,4,6,8(1H,3H,7H,9H)-tetrone 5-oxide.  
 IT 7478-26-4  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation and DNA cleavage properties of pyrimidopteridinetrone oxide-acridine hybrid via hydroxyl radicals)  
 RN 7478-26-4 CA  
 CN Acridine, 3-chloro-7-methoxy-9-phenoxy- (9CI) (CA INDEX NAME)



L13 ANSWER 13 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 124:87460 CA  
 TITLE: Preparation and formulations of 7,11-disubstituted camptothecin derivatives  
 INVENTOR(S): Hausheer, Frederick Herman; Haridas, Kochat  
 PATENT ASSIGNEE(S): Bionumerik Pharmaceuticals, Inc., USA; Lucas, Brian, Ronald  
 SOURCE: PCT Int. Appl., 102 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE       |
|--|------|----------|-----------------|------------|
| WO 9528404   | A1   | 19951026 | WO 1995-EP1220  | 19950331   |
| W: CA, JP, MX<br>RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE<br>US 5468754 A 19951121 US 1994-229527 19940419 |      |          |                 |            |
| CA 2188043   | AA   | 19951026 | CA 1995-2188043 | 19950331   |
| US 5633260   | A    | 19970527 | US 1995-518644  | 19950824   |
| PRIORITY APPLN. INFO.:   |      |          | US 1994-229527  | A 19940419 |
|  |      |          | WO 1995-EP1220  | W 19950331 |

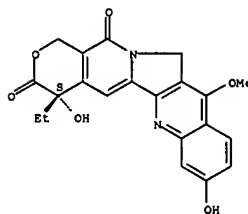
OTHER SOURCE(S): CASREACT 124:87460; MARPAT 124:87460  
 GI



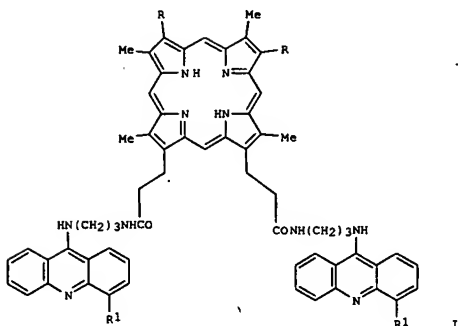
AB The title compds. I (R = alkoxy, alkoxyaryloxy, HO, acyloxy, aryloxy; R1 = alkyl, substituted alkylarom. group, benzyl, alkylhydroxyl, alkylaroxyl, acyloxy derivative) were prepared. Thus, 11-hydroxycamptothecin in water was treated with FeSO4 and propionaldehyde followed by treatment with concentrated sulfuric acid in trifluoroacetic acid and then adding potassium persulfate to give 11-hydroxy-7-ethylcamptothecin (II). 10-Hydroxy-7-ethylcamptothecin was similarly prepared. Novel dosages, schedules, and routes of administration for both the II and 11-hydroxy-7-methylcamptothecin formulations to humans with various forms of cancer.

L13 ANSWER 13 OF 400 CA COPYRIGHT 2005 ACS on STN (Continued)  
 Other embodiments of this invention include isolation methods and methods of synthesis of certain camptothecin derivs.  
 IT 172360-46-2  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (synthesis and formulation of 7,11-disubstituted camptothecin derivs.)  
 RN 172360-46-2 CA  
 CN 1H-Pyran[3',4':6,7]indolizino[1,2-b]quinoline-3,14(4H,12H)-dione, 4-ethyl-4,8-dihydroxy-11-methoxy-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



|                      |   |
|----------------------|---|
| 113 ANSWER 14 OF 400 | CA COPYRIGHT 2005 ACS on STN  |
| ACCESSION NUMBER:    | 124:29486 CA  |
| TITLE:               | Preparation and characterization of   |
| porphyrin-acridine   | conjugates as bifunctional antitumor agents   |
| AUTHOR(S):           | Karaganiis, Gloria; Reiss, James A.   |
| CORPORATE SOURCE:    | Dep. Chem., La Trobe Univ., Bundoora. 3083, Australia   |
| SOURCE:              | Australian Journal of Chemistry (1995),<br>48(10), 1693-705                                       |
| PUBLISHER:           | CODEN: AJCHAS; ISSN: 0004-9425<br>Commonwealth Scientific and Industrial Research<br>Organization |
| DOCUMENT TYPE:       | Journal   |
| LANGUAGE:            | English   |
| OTHER SOURCE(S):     | CASREACT 124:29486  |
| GI                   |   |

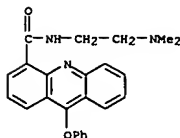


AB The porphyrin-*acridine* conjugates 1 [R = CH<sub>3</sub>CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>NMe<sub>2</sub>, R<sub>1</sub> = H, CONHCH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>NMe<sub>2</sub> (Q)] were prepared by condensation of porphyrin acid with

the 9-aminoacridine derivative. The conjugate drugs were isolated by size-exclusion chromatog. in yields of up to 351 and further purified by semipreparative HPLC to 98% purity and showed cytotoxic activity in screening tests. Characterization of the conjugates was effected by 1H NMR and UV/vis. spectroscopy, FAB mass spectrometry and UV/vis. diode array HPLC. **Keywords:** porphyrin, acridine, conjugate, cytotoxicity, HPLC, NMR, UV/vis. spectroscopy, FAB mass spectrometry and UV/vis. diode array HPLC.

CH<sub>3</sub>CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>(NMe<sub>2</sub>)CO<sub>2</sub>H, CH<sub>3</sub>CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>(CH<sub>2</sub>)<sub>3</sub>NH[CONHCH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>NMe<sub>2</sub>], R<sub>1</sub> = Q; Q: 1

|     |   |
|-----|---|
| L13 | ANSWER 14 OF 400 CA COPYRIGHT 2005 ACS on STN (Continued)<br>= 4,9-acridinediyl) in low yields (52%), but the products could not be obtained in a pure state. However, their presence was identified by several phys. measurements. |
| IT  | 89459-24-59<br>RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)<br>(preparation and characterization of porphyrin-acridine conjugates as bifunctional antitumor agents)              |
| RN  | 89459-24-5 CA   |
| CN  | 4-Acridinecarboxamide, N-[2-(dimethylamino)ethyl]-9-phenoxy- (SCI) (CA INDEX NAME)  |

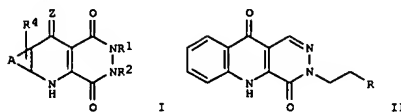


L13 ANSWER 15 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 123:313994 CA  
 TITLE: Preparation of pyridazinoquinolines as NMDA receptor  
 antagonists  
 INVENTOR(S): Bare, Thomas Michael; Sparks, Richard Bruce;  
 Empfield, James Roy; Davenport, Timothy Wayne; McKinney,  
 Jeffrey  
 Alan  
 PATENT ASSIGNEE(S): Zeneca Ltd., UK  
 SOURCE: PCT Int. Appl., 185 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

|     | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|-----|---|------|----------|-----------------|----------|
| <-- | WO 9511244  | A1   | 19950427 | WO 1994-GB2295  | 19941020 |
|     | W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, JP, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, NL, NO, NZ, PL, PT, RO, RU, SE, SI, SK, TJ, TT, UA, US, UZ, VN |      |          |                 |          |
|     | RW: KE, KM, SD, SZ, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG  |      |          |                 |          |
|     | IL 111266   | A    | 20020310 | IL 1994-111266  | 19941012 |
|     | ZA 9408178  | A    | 19950424 | ZA 1994-8178    | 19941018 |
| <-- | CA 2171332  | AA   | 19950427 | CA 1994-2171332 | 19941020 |
| <-- | AU 9479440  | A1   | 19950508 | AU 1994-79440   | 19941020 |
| <-- | AU 688393   | B2   | 19980312 |                 |          |
|     | EP 724583   | A1   | 19960807 | EP 1994-930275  | 19941020 |
| <-- | EP 724583   | B1   | 20001213 |                 |          |
| SE  | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT,  |      |          |                 |          |
|     | HU 74161  | A2   | 19961128 | HU 1996-889     | 19941020 |
| <-- | CN 1138332  | A    | 19961218 | CN 1994-194578  | 19941020 |
|     | CN 1053189  | B    | 20000607 |                 |          |
|     | JP 09504519   | T2   | 19970506 | JP 1995-511521  | 19941020 |
|     | JP 3581332  | B2   | 20041027 |                 |          |
|     | NZ 329303   | A    | 20000128 | NZ 1994-329303  | 19941020 |
|     | EP 1004582  | A2   | 20000531 | EP 2000-101917  | 19941020 |
|     | EP 1004582  | A3   | 20000830 |                 |          |
|     | EP 1004582  | B1   | 20030518 |                 |          |
|     | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  |      |          |                 |          |
|     | IE, SI, LT  |      |          |                 |          |
|     | AT 198072   | E    | 20001215 | AT 1994-930275  | 19941020 |
|     | PL 180679   | B1   | 20010330 | PL 1994-314041  | 19941020 |
|     | PT 724583   | T    | 20010330 | PT 1994-930275  | 19941020 |
|     | RU 214686   | T3   | 20010416 | ES 1994-930275  | 19941020 |
|     | FT 128511   | C2   | 20010610 | RU 1996-109470  | 19941020 |
|     | SK 282491   | B6   | 20020205 | SK 1996-504     | 19941020 |
|     | SG 92630  | A1   | 20021119 | SG 1999-943     | 19941020 |

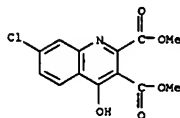
| L13                   | ANSWER 15 OF 400 CA | COPYRIGHT 2005 ACS | ON STN   | (Continued)               |
|-----------------------|---------------------|--------------------|----------|---------------------------|
| CZ                    | 292311              | B6                 | 20030917 | CZ 1996-1138 19941020     |
| AT                    | 295846              | E                  | 20050615 | AT 2000-101917 19941020   |
| TW                    | 406082              | B                  | 20000921 | TW 1994-83110721 19941118 |
| US                    | 5744471             | A                  | 19980428 | US 1996-637641 19960417   |
| FI                    | 9601696             | A                  | 19960418 | FI 1996-1696 19960418     |
| --                    |                     |                    |          |                           |
| FI                    | 113865              | B1                 | 20040630 |                           |
| NO                    | 9601584             | A                  | 19960419 | NO 1996-1584 19960419     |
| --                    |                     |                    |          |                           |
| NO                    | 306995              | B1                 | 20000124 |                           |
| FI                    | 9700907             | A                  | 19970303 | FI 1997-907 19970303      |
| FI                    | 114916              | B1                 | 20050131 |                           |
| AU                    | 6232313             | B1                 | 20010515 | AU 1998-44109 19980319    |
| AU                    | 9866999             | A1                 | 19980730 | AU 1998-68999 19980527    |
| AU                    | 721139              | B2                 | 20000212 |                           |
| HK                    | 1013987             | A1                 | 20020215 | HK 1998-115415 19981224   |
| US                    | 6103721             | A                  | 20000815 | US 1999-455096 19991206   |
| GR                    | 3035080             | T3                 | 20010330 | GR 2000-026090 20001214   |
| PRIORITY APPL. INFO.: |                     |                    |          | GB 1993-21854 A 19931022  |

OTHER SOURCE(S) : MARPAT 123:313994  
GI



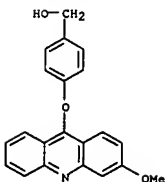
AB Title compds. [(a)automic I; A = atoms to complete an (un)substituted benzene, pyridine, furan, pyrrole, or thiophene ring; R1,R2 = H, (CH2)nR; R3 = (un)substituted Ph, -heterocyclyl, -heteraryl, OH, alkoxy, acyloxy, [di]alkylamino, etc.; R4 = 1 or more halo, alkyl, cyano, alkoxy, etc.; Z = O, S, NH] were prepared. Thus, Me 4-chloroanthranilate was cyclocondensed with MeO2C2.tpbond.CO2Me and the product cyclocondensed in 2 steps with H2NNHCH2CH2OH to give title compound II (R1=Cl) which was converted in 2 steps to Ia (R1=H) and Ia was converted in 2 steps to Ia (R1=H) and Ia was converted from brain ischemic damage in carotid artery clip-occluded gerbils etc.

L13 ANSWER 15 OF 400 CA COPYRIGHT 2005 ACS on STN (Continued)  
 10mg/kg i.p.  
 IT 147494-01-7P  
 RL: BAC (Biological activity or effector, except adverse); BSU  
 (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (preparation of pyridazinoquinolines as NMDA receptor antagonists)  
 RN 147494-01-7 CA  
 CN 2,3-Quinolinedicarboxylic acid, 7-chloro-4-hydroxy-, dimethyl ester (9CI)  
 (CA INDEX NAME)



L13 ANSWER 16 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 123:227967 CA  
 TITLE: 9-Substituted acridine derivatives with long half-life  
 and potent antitumor activity: synthesis and structure-activity relationships  
 AUTHOR(S): Su, Tsann-Long; Chou, Ting-Chao; Kim, Joong Young; Huang, Jai-Tung; Ciszewska, Grazyna; Ren, Wu-Yun; Otter, Grenys M.; Sirotnak, Francis M.; Watanabe, Kyoichi A.  
 CORPORATE SOURCE: Memorial Sloan-Kettering Cancer Center, Sloan-Kettering Institute for Cancer Research, New York, NY, 10021, USA  
 SOURCE: Journal of Medicinal Chemistry (1995), 38(17), 3226-35  
 CODEN: JMCMAR; ISSN: 0022-2623  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 123:227967  
 AB A series of DNA-intercalating 9-anilinoacridines, namely 9-phenoxyacridines, 9-(phenylthio)acridines, and 9-(3',5'-disubstituted anilino)acridines, were synthesized as potential antitumor agents with inhibitory effects on DNA topoisomerase II. Unlike amsacrine (m-AMSA), these agents were designed to avoid the oxidative metabolic pathway. These acridine derivs. were, therefore, expected to have long half-life in plasma. Both 9-phenoxyacridines and 9-(phenylthio)acridines were found to have moderate cytotoxicity against mouse leukemia L1210 and human leukemic HL-60 cell growth in culture. Among 9-(3',5'-disubstituted anilino)acridines, 3-(9-acridinylamino)-5-(hydroxymethyl)aniline (AHMA) was found to be a potent topoisomerase II inhibitor and exhibited significant antitumor efficacy both in vitro and in vivo. Chemotherapy of solid-tumor-bearing mice with 10, 10, and 5 mg/kg (QD + 4, i.p.) AHMA, VP-16, and m-AMSA, resp., resulted in more tumor volume reduction by AHMA than by VP-16 or m-AMSA for E0771 mammary adenocarcinoma and B-16 melanoma. For Lewis lung carcinoma, AHMA was as potent as VP-16 but more active than m-AMSA. Structure-activity relationships of AHMA derivs. are discussed. 4-Hydroxybenzyl alc. in EtOH was added to KOH followed by 9-chloroacridine to give 4-(9-acridinyloxy)benzyl alc. 168556-40-8P  
 IT RL: BAC (Biological activity or effector, except adverse); BSU  
 (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation and structure-activity relationship of antitumor 9-substituted acridine derivs.)  
 RN 168556-40-9 CA  
 CN Benzenemethanol, 4-[(3-methoxy-9-acridinyl)oxy]- (9CI) (CA INDEX NAME)

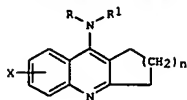
L13 ANSWER 16 OF 400 CA COPYRIGHT 2005 ACS on STN (Continued)



L13 ANSWER 17 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 123:83218 CA  
 TITLE: Memory enhancing 9-aminotetrahydroacridines and related compounds  
 INVENTOR(S): Shutske, Gregory M.; Helsley, Grover C.; Kapples, Kevin J.  
 PATENT ASSIGNEE(S): Hoechst-Roussel Pharmaceuticals Inc., USA  
 SOURCE: U.S., 10 pp. Cont.-in-part of U.S. Ser. No. 26,730, abandoned.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

| PATENT NO.             | KIND | DATE             | APPLICATION NO. | DATE        |
|------------------------|------|------------------|-----------------|-------------|
| US 5391553             | A    | 19950221         | US 1988-244212  | 19880914    |
| FI 8801223             | A    | 19880918         | FI 1988-1223    | 19880315    |
| FI 91401               | B    | 19940315         |                 |             |
| FI 91401               | C    | 19940627         |                 |             |
| IL 85741               | A1   | 19960514         | IL 1988-85741   | 19880315    |
| AU 8813141             | A1   | 19880915         | AU 1988-13141   | 19880316    |
| AU 608300              | B2   | 19910328         |                 |             |
| DK 8801435             | A    | 19880918         | DK 1988-1435    | 19880316    |
| DK 172864              | B1   | 19990823         |                 |             |
| NO 8801164             | A    | 19880919         | NO 1988-1164    | 19880316    |
| NO 173498              | B    | 19930913         |                 |             |
| NO 173498              | C    | 19931222         |                 |             |
| JP 63238063            | A2   | 19881004         | JP 1988-60665   | 19880316    |
| JP 2888485             | B2   | 19990510         |                 |             |
| HU 46672               | A2   | 19881128         | HU 1988-1254    | 19880316    |
| HU 201018              | B    | 19900928         |                 |             |
| ZA 8801865             | A    | 19881130         | ZA 1988-1865    | 19880316    |
| CA 1318675             | A1   | 19930601         | CA 1988-561561  | 19880316    |
| AU 9068239             | A1   | 19910314         | AU 1990-68239   | 19901219    |
| AU 634004              | B2   | 19930211         |                 |             |
| AU 9068241             | A1   | 19910314         | AU 1990-68241   | 19901219    |
| AU 635370              | B2   | 19930318         |                 |             |
| AU 9068240             | A1   | 19910502         | AU 1990-68240   | 19901219    |
| AU 633668              | B2   | 19930204         |                 |             |
| PRIORITY APPLN. INFO.: |      |                  | US 1987-26730   | B2 19870317 |
| OTHER SOURCE(S):       |      | MARPAT 123:83218 |                 |             |
| GI                     |      |                  |                 |             |

L13 ANSWER 17 OF 400 CA COPYRIGHT 2005 ACS on STN (Continued)



AB There are disclosed compds. having the formula I wherein n is 1-4; X is alkyl of 3-18 carbon atoms, cycloalkyl of 3-7 carbon atoms or cycloalkyloweralkyl; R is hydrogen, loweralkyl or loweralkylcarbonyl; R1 is hydrogen, loweralkyl, loweralkylcarbonyl, aryl, diloweralkylaminoloweralkyl, arylloweralkyl, diarylloweralkyl, oxygen-bridged arylloweralkyl or oxygen-bridged diarylloweralkyl; stereo isomers thereof and pharmaceutically acceptable acid addition salts thereof,

which are useful for enhancing memory, methods for synthesizing them, and pharmaceutical compds. comprising an effective memory enhancing amount of such a compound. Thus, e.g., reaction of 9-chloro-7-cyclohexyl-1,2,3,4-tetrahydroacridine (preparation given) with NH3 followed by salt formation

afforded 9-amino-7-cyclohexyl-1,2,3,4-tetrahydroacridine hydrochloride which at 0.63 mg/kg s.c. reversed scopolamine-induced memory deficit in 20% of mice tested.

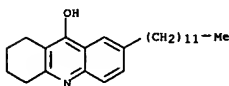
IT 120594-47-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

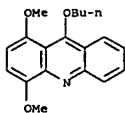
(memory enhancing 9-aminotetrahydroacridines and related compds.)

RN 120594-47-0 CA

CN 9-Acridinol, 7-dodecyl-1,2,3,4-tetrahydro- (9CI) (CA INDEX NAME)



L13 ANSWER 18 OF 400 CA COPYRIGHT 2005 ACS on STN (Continued)



L13 ANSWER 18 OF 400 CA COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 123:79401 CA

TITLE: Activity and structure relationship of acridine derivatives against African trypanosomes

AUTHOR(S): Obexer, W.; Schmid, C.; Barbe, J.; Galy, J. P.; Brun, R.

CORPORATE SOURCE: Swiss Tropical Institute, Basel, Switz.

SOURCE: Tropical Medicine and Parasitology (1995),

46(1), 49-53

CODEN: TMPREY; ISSN: 0177-2392

PUBLISHER: Thieme

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Some 48 newly synthesized acridine derivs. of different classes were screened for antitrypanosomal activity. They showed a dose dependent effect on Trypanosoma rhodesiense and T. brucei bloodstream forms

measured by the inhibition of esterase activity in a fluorescence based in vitro assay. After anal. of the IC50 and MIC values of the investigated acridines, it was obvious that no new compound reached the level of the trypanocidal drugs in use (50 ng/mL). Most of the derivs. had IC50 values

in the range of 1 to 10 µg/mL. Nine derivs. from different classes of acridines were active in vitro below 1 µg/mL. Correlations between structure and effect on trypanosomes have been elucidated by comparing

the IC50 and MIC values of these compds., in the course of which no significant differences in the drug susceptibility between T. brucei und T. rhodesiense was noticed. The dialkylaminoalkyl derivs. among the group

of the 9-thioacridines were slightly more potent than the mono-alkylated ones. 1,2,3,4-Tetrahydro-9-thioacridines showed the influence of higher substituted side chains on the trypanocidal activity in the same way as 9-thioacridines. The corresponding ketones of 9-thioacridines confirmed the tendency of increasing toxicity due to the derivatization of the dialkylaminoalkyl side chain. Within the series of the 9-aminoacridines the elongation of the side chain did not markedly change the activity, however the IC50 values are generally low between 0.13 and 1.2 µg/mL. Two compds. belonging to monoalkylated-9-thioacridines showed to be 560

to 1000-fold less toxic for mammalian cells than for trypanosomes in vitro whereas the other compds. have been similarly active against human

adenoma carcinoma cells and trypanosomes. Screening of the most active compds.

in mice could not confirm the activity of these compds. expressed in vitro.

IT 140844-53-7

RL: BAC (Biological activity or effector, except adverse); BSU

(Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(activity and structure relationship of acridine derivs. against

African trypanosomes)

RN 140844-53-7 CA

CN Acridine, 9-butoxy-1,4-dimethoxy- (9CI) (CA INDEX NAME)

L13 ANSWER 19 OF 400 CA COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 122:81090 CA

TITLE: Synthesis and biological evaluation of some potential antimalarials

AUTHOR(S): Tsai, Chang Swei; Shen, Ai Yu

CORPORATE SOURCE: Dept. Biomed. Sci., Foo Yin Junior College Nursing and

Med. Tech., Kaohsiung, 831, Taiwan

SOURCE: Archiv der Pharmazie (Weinheim, Germany) (1994)

), 327(10), 677-9

CODEN: ARPMA5; ISSN: 0365-6233

DOCUMENT TYPE: Journal

LANGUAGE: English

GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Quinoline derivs. I and II (R = H, R1 = 7-Cl; R = Ac, R1 = 6-MeO) and pyridazine derivs. III and IV were prepared and tested for activity against

Plasmodium berghei in mice. IV showed the highest activity.

IT 160315-75-3P

RL: BAC (Biological activity or effector, except adverse); BSU

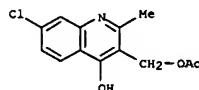
(Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological

study); PREP (Preparation)

(preparation of potential antimalarials)

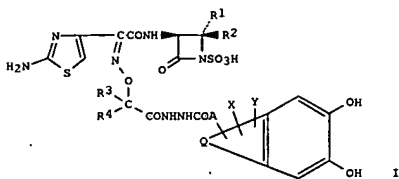
RN 160315-75-3 CA

CN 3-Quinolinemethanol, 7-chloro-4-hydroxy-2-methyl-, α-acetate (9CI) (CA INDEX NAME)



L13 ANSWER 20 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 122:55819 CA  
 TITLE: Heterocyclic hydrazide derivatives of monocyclic  $\beta$ -lactam antibiotics  
 INVENTOR(S): Ermann, Peter H.; Straub, Henner  
 PATENT ASSIGNEE(S): E. R. Squibb and Sons, Inc., USA  
 SOURCE: U.S., 20 pp. Cont. of U.S. Ser. No. 410,217, abandoned.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

| PATENT NO.             | KIND | DATE             | APPLICATION NO. | DATE     |
|------------------------|------|------------------|-----------------|----------|
| US 5318963             | A    | 19940607         | US 1990-620170  | 19901130 |
| CA 2024282             | AA   | 19910322         | CA 1990-2024282 | 19900830 |
| JP 03120276            | A2   | 19910522         | JP 1990-254057  | 19900921 |
| PRIORITY APPLN. INFO.: |      | US 1989-410217   | B2 19890921     |          |
| OTHER SOURCE(S):       |      | MARPAT 122:55819 |                 |          |
| GI                     |      |                  |                 |          |



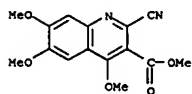
AB Antibacterial (no data) compds. (I) and pharmaceutically acceptable salts thereof, wherein: A is a bond or alkylene; Q completes a 5- or 6-membered saturated or unsatd. (including aromatic) heterocyclic ring having one or two heteroatoms in the ring selected from nitrogen, NR5,  $\text{tpbond.N+R6}$ , sulfur or oxygen; X is attached to an available carbon atom in the heterocyclic ring and is hydrogen, amino, hydroxyl, halogen, carboxamide, nitrile, or carboxyl, except that Y is not carboxyl when the bicyclic ring completed by Q is 2-quinolyl, 3-quinolyl, or quinoxalyl; and the remaining symbols are as defined in the specification.

IT 135215-16-6P, 2-Cyano-4,6,7-trimethoxy-3-quinolinecarboxylic acid, methyl ester

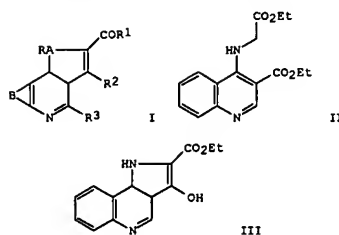
L13 ANSWER 21 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 121:108763 CA  
 TITLE: Preparation of condensed pyridine derivatives as inhibitors of the biological effects of oxygen free radicals  
 INVENTOR(S): Bachy, Andre; Fraisse, Laurent; Keane, Peter; Mendes, Etienne; Vernieres, Jean Claude; Simland, Jacques  
 PATENT ASSIGNEE(S): Elf SanoFi SA, Fr.  
 SOURCE: Eur. Pat. Appl., 24 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE              | APPLICATION NO. | DATE     |
|---|------|-------------------|-----------------|----------|
| EP 587473   | A1   | 19940316          | EP 1993-402095  | 19930825 |
| EP 587473   | B1   | 19981111          |                 |          |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE | A1   | 19940304          | FR 1992-10329   | 19920827 |
| FR 2695126  | B1   | 19941110          | US 1993-109073  | 19930819 |
| US 5360799  | A    | 19941101          |                 |          |
| AU 9344747  | A1   | 19940303          | AU 1993-44747   | 19930820 |
| AU 659027   | B2   | 19950504          |                 |          |
| AT 173258   | E    | 19981115          | AT 1993-402095  | 19930825 |
| ES 2125315  | T3   | 19990301          | ES 1993-402095  | 19930825 |
| CA 2104883  | AA   | 19940228          | CA 1993-2104883 | 19930826 |
| NO 9303051  | A    | 19940228          | NO 1993-3051    | 19930826 |
| HU 64957  | A2   | 19940328          | HU 1993-2425    | 19930826 |
| HU 217623   | B    | 20000328          |                 |          |
| JP 06184145   | A2   | 19940705          | JP 1993-211451  | 19930826 |
| FI 103889   | B1   | 19991015          | FI 1993-3756    | 19930826 |
| US 5468750  | A    | 19951121          | US 1994-273943  | 19940712 |
| FI 9602714  | A    | 19960701          | FI 1996-2714    | 19960701 |
| FI 103277   | B1   | 19990531          |                 |          |
| PRIORITY APPLN. INFO.:  |      | FR 1992-10329     | A               | 19920827 |
|   |      | US 1993-109073    | A3              | 19930819 |
|   |      | FI 1993-3756      | A               | 19930826 |
| OTHER SOURCE(S):  |      | MARPAT 121:108763 |                 |          |
| GI  |      |                   |                 |          |

L13 ANSWER 20 OF 400 CA COPYRIGHT 2005 ACS on STN (Continued)  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (prepn. and reaction of, in prepn. of heterocyclic hydrazide deriva.  
 of monocyclic  $\beta$ -lactam antibiotics)  
 RN 135215-16-6 CA  
 CN 3-Quinolinecarboxylic acid, 2-cyano-4,6,7-trimethoxy-, methyl ester (9CI)  
 (CA INDEX NAME)



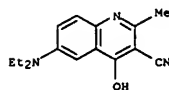
L13 ANSWER 21 OF 400 CA COPYRIGHT 2005 ACS on STN (Continued)



AB Title compds. (I; R1 = OH, alkyl, alkoxy, Ph, PhCH2, PhCH2O, (substituted) amino, aminoalkyl; R2 = OH, SH, alkoxy, alkylthio, (substituted) amino; R3 = H, alkyl, alkylthio, alkoxy, Ph, PhCH2; A = S, N; R = null, H, (substituted) alkyl; B = (substituted) Ph, pyridyl, or thienyl nucleus], were prepared. Thus, aminoacetate II was stirred 10 h with KOtBu in PhMe/HOCMe3 to give title compound III. I inhibited the toxic effects of KCN in mice with IC50 = 2-30 mg/kg i.v.

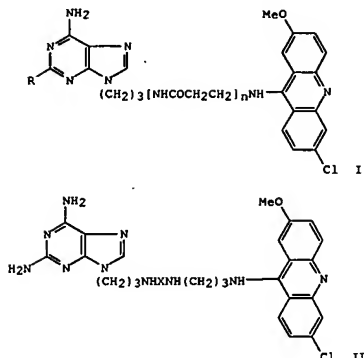
IT 156566-40-4P  
 -RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of, as intermediate for inhibitor of biol. effects of free radicals).

RN 156566-40-4 CA  
 CN 3-Quinolinecarbonitrile, 6-(diethylamino)-4-hydroxy-2-methyl- (9CI) (CA INDEX NAME)



10/715,846

L13 ANSWER 22 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 120:323064 CA  
 TITLE: Synthesis of purine-acridine hybrid molecules related to artificial endonucleases  
 AUTHOR(S): Fkyerat, Abdellatif; Demeunynck, Martine; Constant, Jean Francois; Lhomme, Jean  
 CORPORATE SOURCE: Univ. J. Fourier, Grenoble, 38041, Fr.  
 SOURCE: Tetrahedron (1993), 49(48), 11237-52  
 CODEN: TETRAB; ISSN: 0040-4020  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI



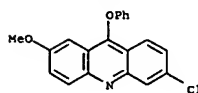
AB In the course of a program devoted to the synthesis of artificial endonucleases, the hybrid mols. I (R = H, NH2, n = 1, 2) and II (X = COCH2CH2, CH2CH2CO) in which a purine is linked to an aminoacridine by an aliphatic chain containing amido or/and amino groups have been prepared.  
 The key intermediates are  $\alpha$ -halo- $\alpha$ -amino polyaza chains which may be of general use as linkers in bioconjugate chemical I and II recognize and cleave selectively abasic sites in DNA with very high efficiency.  
 IT 7478-26-4  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reactant, in preparation of purine acridine hybrid endonuclease model)

L13 ANSWER 23 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 120:293590 CA  
 TITLE: Separation method with auxiliary ligand-binder pairs in immunological detection of multiple analytes  
 INVENTOR(S): Abuknesha, Ramadan Arbi  
 PATENT ASSIGNEE(S): GEC-Masconi Ltd., UK  
 SOURCE: PCT Int. Appl., 71 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 6  
 PATENT INFORMATION:

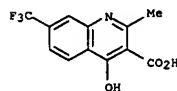
| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE       |
|---|------|----------|-----------------|------------|
| WO 9403807  | A1   | 19940217 | WO 1993-GB1627  | 19930802   |
| W: CA, JP, US<br>RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE |      |          |                 |            |
| GB 2270976  | A1   | 19940330 | GB 1992-19743   | 19920918   |
| GB 2261948  | A1   | 19930602 | GB 1992-24897   | 19921127   |
| GB 2261949  | A1   | 19930602 | GB 1992-24898   | 19921127   |
| EP 653065   | A1   | 19950517 | EP 1993-917967  | 19930802   |
| EP 653065   | B1   | 20021030 |                 |            |
| R: DE, FR   |      |          |                 |            |
| PRIORITY APPLN. INFO.:  |      |          |                 |            |
|   |      |          | GB 1992-16450   | A 19920803 |
|   |      |          | GB 1992-16683   | A 19920806 |
|   |      |          | GB 1992-19743   | A 19920918 |
|   |      |          | GB 1992-20722   | A 19921001 |
|   |      |          | GB 1992-24897   | A 19921127 |
|   |      |          | GB 1992-24898   | A 19921127 |
|   |      |          | GB 1991-25204   | A 19911127 |
|   |      |          | GB 1991-25218   | A 19911127 |
|   |      |          | WO 1993-GB1627  | W 19930802 |

AB A separation method which finds application in immunol. detection, a method suitable for use in detection, a sensor, and a test kit are disclosed. The invention provides a separation method suitable for use in an immunol. method for the detection of >1 species, which includes the use of >1 auxiliary ligand-binder pairs, the auxiliary ligand of each of the plurality of auxiliary ligand-binder pairs being provided on a support material. The invention also provides a separation method which includes the use of a plurality of auxiliary ligand-binder pairs, an auxiliary ligand of one auxiliary ligand-binder pair being provided on a support material and a binder of another auxiliary ligand-binder pair, which pair

L13 ANSWER 22 OF 400 CA COPYRIGHT 2005 ACS on STN (Continued)  
 RN 7478-26-4 CA  
 CN Acridine, 3-chloro-7-methoxy-9-phenoxy- (9CI) (CA INDEX NAME)



L13 ANSWER 23 OF 400 CA COPYRIGHT 2005 ACS on STN (Continued)  
 used were 7-hydroxy-4-methylcoumarin-3-propionic acid, 2-(4-aminophenyl)-6-methylthiazole hemiglutarate, and 2-phenyl-4-quinoline carboxylic acid; auxiliary binders were antibodies to these ligands.  
 IT 154821-27-9, 4-Hydroxy-7-trifluoromethyl-3-quinolinecarboxylic acid  
 RL: ANST (Analytical study)  
 (as auxiliary ligand, antibody as auxiliary binder to, in separation in multiple analyte immunol. detection)  
 RN 154821-27-9 CA  
 CN 3-Quinolinecarboxylic acid, 4-hydroxy-2-methyl-7-(trifluoromethyl)- (9CI) (CA INDEX NAME)



L13 ANSWER 24 OF 400 CA COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

TITLE:

AUTHOR(S):

CORPORATE SOURCE:

SOURCE:

DOCUMENT TYPE:

LANGUAGE:

AB Tacrine's [1,2,3,4-tetrahydro-9-acridinamine monohydrochloride monohydrate, (THA)] metabolic fate was examined using human and rat liver microsomal preps. Following 1-h incubations with human microsomes, [14C]THA (0.4  $\mu$ M) was extensively metabolized to 1-hydroxy THA with trace amts. of 2-, 4-, and 7-hydroxy THA also produced. Poor recovery of radioactivity in the postreaction incubates suggested association of THA-derived radioactivity with precipitated microsomal protein. After exhaustive extraction, 0.034, 0.145, 0.126, and 0.012 nmol eq bound/mg protein/60 min of THA-derived radioactivity was bound to human liver preps. H109, H111, H116, and H118, resp. Preps. H109 and H118 were lower in P 450IA2 content and catalytic activity as compared with preps. H111 and H116. Incubations of equimolar [14C]1-hydroxy THA with human liver microsomes also resulted in binding to protein, although to a lesser extent than observed with THA. [14C]THA (0.4  $\mu$ M) was incubated for 1 h with rat liver microsomes (1  $\mu$ M P 450) prepared from noninduced (N), phenobarbital (PB), isoniazid (I), and 3-methylcholanthrene (3-MC)-pretreated animals. In all incubations, 1-hydroxy THA was the major biotransformation product detected. After exhaustive extraction, 0.048, 0.054, 0.049, and 0.153 nmol eq/mg protein/60 min of THA-derived radioactivity was bound to microsomal protein from N, PB, I, and 3-MC pretreated rats. Increased binding with 3-MC induced rat liver preps. suggests the involvement of the P 450 1A subfamily in THA bioactivation. Glutathione (5 mM) coinubation inhibited the irreversible binding of THA-derived radioactivity in both human and 3-MC-induced rat liver preps., whereas human epoxide hydrolase (100  $\mu$ g/incubate) had a relative minor effect. A mechanism is proposed involving a putative quinone methide(s) intermediate in the bioactivation and irreversible binding of THA. A species difference in THA-derived irreversible binding exists between human and noninduced rat liver microsomes, suggesting that the rat is a poor model for studying the underlying mechanism(s) of THA-induced elevations in liver marker enzymes found in clin. investigations.

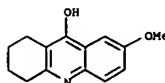
IT 151921-07-2P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

L13 ANSWER 24 OF 400 CA COPYRIGHT 2005 ACS on STN (Continued)

(prepn. and chlorination of)

RN 151921-07-2 CA

CN 9-Acridinol, 1,2,3,4-tetrahydro-7-methoxy- (9CI) (CA INDEX NAME)



L13 ANSWER 25 OF 400 CA COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

TITLE:

AUTHOR(S):

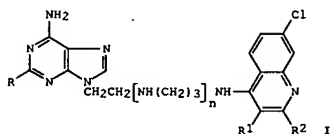
CORPORATE SOURCE:

SOURCE:

DOCUMENT TYPE:

LANGUAGE:

GI



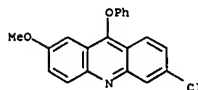
AB A series of tailor-made mols., I [n = 1, 2; R = H, NH2; R1 = R2 = H; R1R2 = CH:C(OMe)CH:CH] have been prepared to recognize and cleave DNA at apurinic sites. I incorporate in their structure different units designed for specific functions, i.e., an intercalator for DNA binding, a nucleic base for abasic site recognition, and a linker endowed with both a binding function and a cleavage function. The constituent units were varied successively in the series of mols. to get insight into their mode of action and prepare more active compds. 1H NMR spectroscopy reveals the absence of intramol. ring-ring stacking interactions in water between the base and the intercalator in all I. All bind to calf thymus DNA with binding consts. ranging from 104 to 106 M<sup>-1</sup>. Their nuclease activity was estimated by measuring their ability to induce single strand breaks in depurinated pBR 322 plasmid DNA. The most efficient mol., I [n = 2, R = NH2, R1R2 = CH:C(OMe)CH:CH, II], exhibits high recognition selectivity and cleavage efficiency: at nanomolar concns., II recognizes and cleaves the abasic lesion present in a DNA mol. containing an average of 1.8 apurinic sites in its 4,362 base pairs sequence. II exhibits higher cleaving efficiency than the reported tripeptide Lys-Trp-Lys: 10<sup>-8</sup> M concns. of II lead to cleavage ratios comparable to those observed for the latter used as 10<sup>-3</sup> M concentration. This enzyme mimic II can be used advantageously as a substitute to the natural nuclease for in vitro cleavage of depurinated DNA.

IT 7478-26-4P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (reactant in preparation of azakylpurine artificial nucleases)

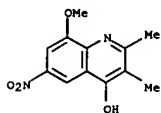
L13 ANSWER 25 OF 400 CA COPYRIGHT 2005 ACS on STN (Continued)

RN 7478-26-4 CA

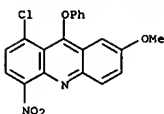
CN Acridine, 3-chloro-7-methoxy-9-phenoxy- (9CI) (CA INDEX NAME)



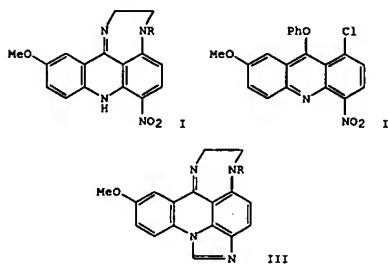
L13 ANSWER 26 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 119:207130 CA  
 TITLE: Identification of metamict minerals by x-ray diffraction and thermoanalytical techniques  
 AUTHOR(S): Kresten, Peter  
 CORPORATE SOURCE: Kresten GeoData, Uppsala, S-754 31, Swed.  
 SOURCE: Geologiska Foereningen i Stockholm Foerhandlingar (1993), 115(1), 77-91  
 CODEN: GFSFA4; ISSN: 0016-786X  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Twenty species of metamict (and allegedly metamict) minerals have been investigated using electron microprobe anal., high-temperature X-ray anal., DTA, and thermogravimetry. The results are combined with relevant data from the literature as an aid for the identification of metamict minerals.  
 IT 1217-71-6  
 RL: OCCU (Occurrence)  
 (metamict, composition and thermal anal. curves and x-ray diffraction pattern of)  
 RN 1217-71-6 CA  
 CN 4-Quinololinol, 8-methoxy-2,3-dimethyl-6-nitro- (7CI, 8CI, 9CI) (CA INDEX NAME)



L13 ANSWER 27 OF 400 CA COPYRIGHT 2005 ACS on STN (Continued)

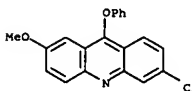


L13 ANSWER 27 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 118:191695 CA  
 TITLE: Synthesis of substituted 1,4-diazepino[5,6,7-k]acridines and imidazo[4,5,1-de][1,4]diazepino[5,6,7-mn]acridines  
 AUTHOR(S): Cholody, Wieslaw M.; Konopa, Jerzy; Martelli, Sante  
 CORPORATE SOURCE: Dep. Pharm. Technol. Biochem., Tech. Univ. Gdansk, Gdansk, 80952, Pol.  
 SOURCE: Journal of Heterocyclic Chemistry (1992), 29(7), 1749-52  
 CODEN: JHTCAD; ISSN: 0022-152X  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 118:191695  
 GI



AB The synthesis of some substituted methoxynitrodiazepinoacridines I (R = H, Me, Et, n-Pr, CH<sub>2</sub>CH<sub>2</sub>OH, CH<sub>2</sub>CH<sub>2</sub>OMe, CH<sub>2</sub>CH<sub>2</sub>Net<sub>2</sub>, CH<sub>2</sub>CH<sub>2</sub>Cl) with more diversified chains at position 4 is described. Thus, reacting H<sub>2</sub>N(CH<sub>2</sub>)<sub>2</sub>NHR with chlorophenoxyacridine II in DMF gave I, except for I (R = CH<sub>2</sub>CH<sub>2</sub>Cl) which was prepared by chlorination of I (R = CH<sub>2</sub>CH<sub>2</sub>OH). I were conveniently transformed into methoxyimidazodiazepinoacridines III by treatment with Al-Ni in HCO<sub>2</sub>H.  
 IT 134039-84-2  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (cyclocondensation of, with ethylenediamines)  
 RN 134039-84-2 CA  
 CN Acridine, 1-chloro-7-methoxy-4-nitro-9-phenoxy- (9CI) (CA INDEX NAME)

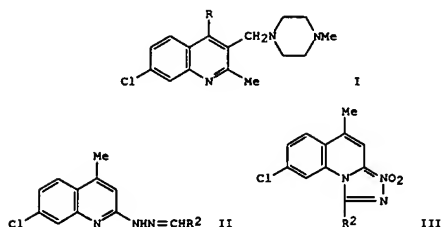
L13 ANSWER 28 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 118:141970 CA  
 TITLE: Enantioselectivity in the interaction of calf thymus DNA with acridine derivatives having an amino ester or amino alcohol substituent  
 AUTHOR(S): Asakawa, Masumi; Endo, Ken; Kobayashi, Kenji; Toi, Hiroo; Aoyama, Yasuhiro  
 CORPORATE SOURCE: Dep. Chem., Nagaoka Univ. Technol., Nagaoka, 940-21, Japan  
 SOURCE: Bulletin of the Chemical Society of Japan (1992), 65(8), 2050-5  
 CODEN: BCSJAS; ISSN: 0009-2673  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Unless a bulky aromatic side chain is involved, acridine derivs. having an amino ester or amino alc. substituent bind to calf thymus DNA via intercalation. The binding consts. evaluated by the Scatchard anal. of the hypochromicity data indicate that (1) the substituents introduced are rather inhibitory of the binding and (2) L-enantiomers are preferred over the D-enantiomers by a factor of KL/KD = 1.1-1.4, except for the case of aspartic and glutamic esters where the optical selectivity is very low or even reversed. The present enantioselectivity is discussed in terms of a local C2 chirality of the interaction site, steric effects of the amino ester or amino alc. substituents, and a possible conformation-controlling effect of the CO<sub>2</sub>CH<sub>3</sub> or CH<sub>2</sub>OH group.  
 IT 7478-26-4  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with leucine Me ester or leucinol)  
 RN 7478-26-4 CA  
 CN Acridine, 3-chloro-7-methoxy-9-phenoxy- (9CI) (CA INDEX NAME)





10/715,846

L13 ANSWER 29 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 118:59673 CA  
 TITLE: Synthesis of some new quinoline-Mannich bases and other related products of possible antimicrobial activity  
 AUTHOR(S): Ebeid, M. Y.; El-Said, M. K.; Kamel, M. M.; Gadalla, K. Z.; Faddah, L. M.  
 CORPORATE SOURCE: Fac. Pharm., Cairo Univ., Cairo, Egypt  
 SOURCE: Egyptian Journal of Pharmaceutical Sciences (1991), 32(3-4), 653-62  
 CODEN: EJPSBZ; ISSN: 0301-5068  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 118:59673  
 GI



AB The synthesis of thirteen new quinoline-Mannich bases I (R = OH, Cl, NHC6H4SO2NHR1-4, R1 = H, 2-pyrimidinyl, 2-thiazolyl) and II (R2 = C6H4OMe-4, C6H4NMe2-4, 2-thienyl) and triazoloquinolines III (same R2) is reported. The chemical structures of these compds. were confirmed by elemental and spectral analyses. Two representative compds. were tested for antimicrobial and antifungal activities.  
 IT 145326-85-8P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and chlorination of)  
 RN 145326-85-8 CA  
 CN 4-Quinololinol, 7-chloro-2-methyl-3-[(4-methyl-1-piperazinyl)methyl]- (9CI) (CA INDEX NAME)

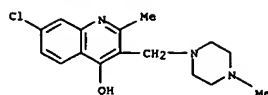
L13 ANSWER 30 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 118:22154 CA  
 TITLE: Preparation of (quinolymethyl)biphenylcarboxylates and analogs as drugs  
 INVENTOR(S): Clemence, Francois; Fortin, Michel; Haesslein, Jean Luc  
 PATENT ASSIGNEE(S): Roussel-UCLAF, Fr.  
 SOURCE: Eur. Pat. Appl., 110 pp.  
 CODEN: EPXKDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE        |
|---|------|----------|-----------------|-------------|
| EP 498723   | A1   | 19920812 | EP 1992-400296  | 19920205    |
| EP 498723   | B1   | 20010919 |                 |             |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, PT, SE |      |          |                 |             |
| FR 2672596  | A1   | 19920814 | FR 1991-1374    | 19910207    |
| FR 2672596  | B1   | 19950713 |                 |             |
| FR 2680510  | A1   | 19930226 | FR 1991-10435   | 19910820    |
| FR 2680510  | B1   | 19950623 |                 |             |
| AU 9210709  | A1   | 19920820 | AU 1992-10709   | 19920205    |
| AU 658163   | B2   | 19950406 |                 |             |
| JP 04346974   | A2   | 19921202 | JP 1992-47750   | 19920205    |
| JP 3599351  | B2   | 20041208 |                 |             |
| AT 205832   | E    | 20011015 | AT 1992-400296  | 19920205    |
| ES 2161688  | T3   | 20011216 | ES 1992-400296  | 19920205    |
| PT 498723   | T    | 20020228 | PT 1992-400296  | 19920205    |
| CA 2060750  | AA   | 19920808 | CA 1992-2060750 | 19920206    |
| HU 64522  | A2   | 19940128 | HU 1992-366     | 19920206    |
| RU 2119481  | C1   | 19980927 | RU 1992-5011269 | 19920206    |
| CN 1063869  | A    | 19920826 | CN 1992-100804  | 19920207    |
| BR 9200424  | A    | 19921013 | BR 1992-424     | 19920207    |
| ZA 9200895  | A    | 19930428 | ZA 1992-895     | 19920207    |
| US 5817674  | A    | 19981006 | US 1996-583637  | 19960105    |
| US 6004979  | A    | 19991221 | US 1998-71586   | 19980501    |
| GR 3036805  | T3   | 20020131 | GR 2001-401668  | 20011004    |
| PRIORITY APPLN. INFO.:  |      |          | FR 1991-1374    | A 19910207  |
|   |      |          | FR 1991-10435   | A 19910820  |
|   |      |          | US 1992-832749  | B1 19920207 |
|   |      |          | US 1994-191862  | B1 19940204 |
|   |      |          | US 1996-583637  | A1 19960105 |

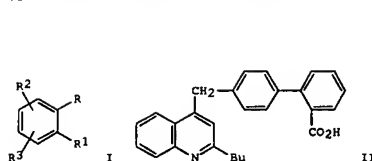
OTHER SOURCE(S): MARPAT 118:22154

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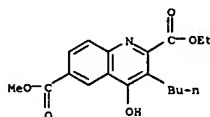
L13 ANSWER 29 OF 400 CA COPYRIGHT 2005 ACS on STN (Continued)



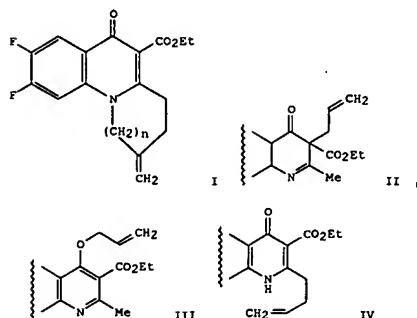
L13 ANSWER 30 OF 400 CA COPYRIGHT 2005 ACS on STN (Continued)



AB Title compds. (I; RR1 = Z1:Z2:Z3:Z4; R2,R3 = H, halo, alkyl, aryl, CONH2, etc.; Z1-Z4 = N, CR4; R4 = H, alkyl, aryl, ZSR5, etc.; R5 = Y1BY2; B = bond, O, CO, CONH, etc.; Y1 = (substituted) aryl; when B = bond Y2 may = H, halo, OH, CO2H, etc.; Y2 may = Y1; Z5 = alkylene) were prepared. Thus, MeCOBu was condensed with (EtO)2CO and the product condensed with PhNH2 to give PhNHCBu:CHCO2Et which was cyclized and the product chlorinated to give 4-chloro-2-butylquinoline. The latter was condensed with 4-(BrH2C)C6H4C6H4(CO2Me)-2 in the presence of Zn and (Ph3P)4Pd to give, after saponification, title compound II which had IC50 of 131 nM against angiotensin II effect on isolated rat portal vein.  
 IT 144624-67-9P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and reaction of, in preparation of drugs)  
 RN 144624-67-9 CA  
 CN 2,6-Quinolinedicarboxylic acid, 3-butyl-4-hydroxy-, 2-ethyl 6-methyl ester (9CI) (CA INDEX NAME)

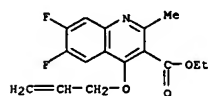


L13 ANSWER 31 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 118:22129 CA  
 TITLE: Novel [3+2] and [3+3] 4-quinolone annulations by tandem Claisen-Cope amidoalkylation reaction  
 AUTHOR(S): Newhouse, Bradley J.; Bordner, Jon; Augeri, David J.; Litts, Christopher S.; Kleinman, Edward F.  
 CORPORATE SOURCE: Cent. Res. Div., Pfizer Inc., Groton, CT, 06340, USA  
 SOURCE: Journal of Organic Chemistry (1992), 57(25), 6991-5  
 CODEN: JOCEAH; ISSN: 0022-3263  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 118:22129  
 GI

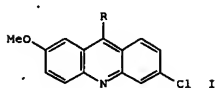


AB Thermolysis of 4-(propargyloxy)quinoline and 4-[(2-chloromethyl)allyloxy]quinoline leads to the formation of pyrrole[1,2-a]quinolone and 1H-benzo[c]quinolizine I (n = 0, 1), resp., by an annulation process involving a tandem Claisen-Cope-amidoalkylation reaction. These compds. are useful as intermediates in the synthesis of novel tricyclic quinolone antibacterials. Extension of this reaction by incorporation of an initial in situ O-alkylation step results in the formation of 1H-benzo[c]quinolizine I (n = 1) directly from Et 6,7-difluoro-1,4-dihydro-2-methyl-4-oxoquinolinecarboxylate by thermolysis of the latter in the presence of 3 equivs. of (2-chloromethyl)allyl chloride and excess K2CO3. The mechanism of the Claisen-Cope pathway, as

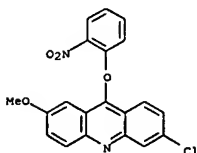
L13 ANSWER 31 OF 400 CA COPYRIGHT 2005 ACS on STN (Continued)  
 first postulated by Makisumi (1965) in earlier studies, was confirmed by the isolation of the Claisen intermediate, dienone II, in the thermolysis of allyloxyquinoline III to produce 2-(3-butenyl)-4-quinolone IV.  
 IT 144744-02-5F  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and Claisen-Cope rearrangement of)  
 RN 144744-02-5 CA  
 CN 3-Quinolonecarboxylic acid, 6,7-difluoro-2-methyl-4-(2-propenyloxy)-, ethyl ester (9CI) (CA INDEX NAME)



L13 ANSWER 32 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 117:131041 CA  
 TITLE: Synthesis of 3-chloro-7-methoxy-9-substituted acridine derivatives as potential antimicrobial agents  
 AUTHOR(S): El-Badry, Ossama M.  
 CORPORATE SOURCE: Fac. Pharm., Cairo Univ., Cairo, Egypt  
 SOURCE: Alexandria Journal of Pharmaceutical Sciences (1992), 5(1), 11-14  
 CODEN: AJPS; ISSN: 1110-1792  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI



AB Reaction of dichloromethoxyacridine I (R = Cl) with anilines, phenol, and heterocyclic thiols afforded the corresponding acridines I (e.g., R = NHC6H4Me-2, OC6H4Me-2, S-2-benzimidazolyl). The bactericidal and fungicidal activity of I (R = aniline- or heterocyclic thiol-derived) exceeded that of I (R = phenol-derived).  
 IT 143251-43-8F  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of, as antimicrobial)  
 RN 143251-43-8 CA  
 CN Acridine, 6-chloro-2-methoxy-9-(2-nitrophenoxy)- (9CI) (CA INDEX NAME)

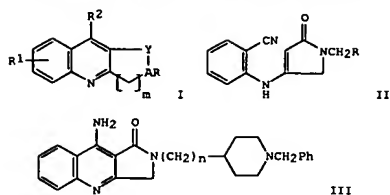


L13 ANSWER 33 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 117:69851 CA  
 TITLE: Preparation of 2-[(1-benzyl-4-piperidinyl)alkyl]dihydropyrroloquinolinones and -tetrahydroacridinones and analogs as acetylcholinesterase inhibitors  
 INVENTOR(S): Hasegawa, Hiroshi; Isomae, Kazuo; Kotsugai, Takeshi; Shioiri, Noriaki; Sekine, Kumiko; Taide, Naokata; Sato, Susumu; Kuraishi, Tadayuki  
 SS Pharmaceutical Co., Ltd., Japan  
 PATENT ASSIGNEE(S): Eur. Pat. Appl., 37 pp.  
 SOURCE: CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

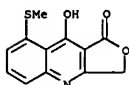
| PATENT NO.                                | KIND | DATE     | APPLICATION NO. | DATE        |
|---|------|----------|-----------------|-------------|
| EP 481429                                 | A2   | 19920422 | EP 1991-117581  | 19911015    |
| EP 481429                                 | A3   | 19920819 |                 |             |
| EP 481429                                 | B1   | 20010124 |                 |             |
| US 5190951                                | A    | 19930302 | US 1991-773432  | 19911009    |
| EP 987262                                 | A1   | 20000322 | EP 1999-124146  | 19911015    |
| R: BE, CH, DE, ES, FR, GB, IT, LI, NL, SE |      |          |                 |             |
| ES 2156853                                | T3   | 20010801 | ES 1991-117581  | 19911015    |
| JP 05009188                               | A2   | 19930119 | JP 1991-267741  | 19911016    |
| JP 06076399                               | B4   | 19940928 |                 |             |
| KR 206200                                 | B1   | 19990701 | KR 1991-18237   | 19911016    |
| CA 2053640                                | AA   | 19920420 | CA 1991-2053640 | 19911017    |
| CA 2053640                                | C    | 20011225 |                 |             |
| JP 05279355                               | A2   | 19931026 | JP 1991-271408  | 19911018    |
| JP 06076401                               | B4   | 19940928 |                 |             |
| US 5240934                                | A    | 19930831 | US 1992-946620  | 19920918    |
| US 5300517                                | A    | 19940405 | US 1993-53202   | 19930428    |
| HK 1011351                                | A1   | 20010928 | HK 1998-112039  | 19981116    |
| PRIORITY APPLN. INFO.:                    |      |          | JP 1990-281093  | A 19901019  |
|   |      |          | JP 1990-281094  | A 19901019  |
|   |      |          | US 1991-773432  | A3 19911009 |
|   |      |          | EP 1991-117581  | A3 19911015 |
|   |      |          | US 1992-946620  | A3 19920918 |

OTHER SOURCE(S): NARPAT 117:69851  
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L13 ANSWER 33 OF 400 CA COPYRIGHT 2005 ACS on STN (Continued)

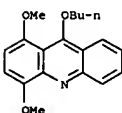


AB Title compds. [I: A = N(CH<sub>2</sub>)<sub>n</sub>, C:CH(CH<sub>2</sub>)<sub>n</sub>, or CH(CH<sub>2</sub>)<sub>n</sub> when R = 1-(substituted)benzyl-4-piperidinyl; A = C when R = 1-(substituted)benzyl-4-piperidinylidene; R<sub>1</sub> = H, halo, alkyl, alkoxy, alkylthio; R<sub>2</sub> = H, halo, alkyl, alkoxy, OH, Ph, etc.; Y = CO, CHO; m = 1-3; n = 0-7] were prepared  
Thus, N-(1-benzyl-4-piperidinylmethyl)-4-chloro-3,3-ethylenedioxybutanamide (preparation given) was cyclized and the deprotected product condensed with 2-(H<sub>2</sub>N)C<sub>6</sub>H<sub>4</sub>CN to give oxopyrrolinylaminobenzonitrile II (R = 1-benzyl-4-piperidinyl) which was cyclized to give title pyrroloquinolinone III (n = 1). III (n = 2) gave 52.0% improvement of scopolamine-induced amnesia in mice at 0.03 mg/kg orally.  
IT 142471-91-8P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and reaction of, in preparation of acetylcholinesterase inhibitors)  
RN 142471-91-8 CA  
CN Furo[3,4-b]quinolin-1(3H)-one, 9-hydroxy-8-(methylthio)- (9CI) (CA INDEX NAME)



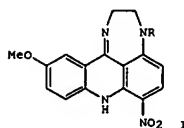
L13 ANSWER 35 OF 400 CA COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 116:193425 CA  
TITLE: Separation, identification and conformational studies of functional isomers in the 1,4-dimethoxy-9(10H)-acridinone series  
AUTHOR(S): Berny, Hassan; Charbit, Jean Jacques; Brouant, Pierre;  
CORPORATE SOURCE: Galy, Anne Marie; Galy, Jean Pierre; Barbe, Jacques  
Groupe Etud. Rech. Chim. Ther., Org. Phys., Fac. Pharm., Marseille, 13385, Fr.  
SOURCE: Polish Journal of Chemistry (1991), 65(11), 2005-13  
CODEN: PJCHDQ; ISSN: 0137-5083  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB Alkylation of 1,4-dimethoxy-9(10H)-acridinone under phase-transfer catalysis conditions led to a mixture of functional isomers, which were separated by column chromatog. The O-R and N-R isomers were identified by <sup>1</sup>H and <sup>13</sup>C NMR. The structure of these derivs. was investigated by CNDO/2 as well as by mol. mechanics. Mol. conformations were portrayed by comparing the exptl. dipole moments with those calculated for some selected geometries. The results support a planar structure for the O-substituted compound while the N-substituted compound would be folded with a quasi-axial orientation of the alkyl substituent.  
IT 140844-53-7  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(alkylation of, under phase transfer catalysis conditions)  
RN 140844-53-7 CA  
CN Acridine, 9-butoxy-1,4-dimethoxy- (9CI) (CA INDEX NAME)

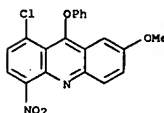


L13 ANSWER 34 OF 400 CA COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 117:48513 CA  
TITLE: Substituted 1,4-diazepino[5,6,7-kl]acridines as unexpected side products in reaction of 2-(dialkylamino)ethylamine with 1-chloro-7-methoxy-4-nitro-9-phenoxyacridine  
AUTHOR(S): Cholody, Wieslaw M.; Martelli, Sante; Gariboldi, Pierluigi V.  
CORPORATE SOURCE: Dep. Pharm. Technol. Biochem., Tech. Univ. Gdansk, Gdansk, 80952, Pol.  
SOURCE: Journal of Heterocyclic Chemistry (1992), 29(1), 161-5  
CODEN: JHTCAD; ISSN: 0022-152X  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI

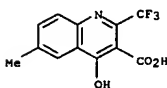


AB Substituted 1,4-diazepino[5,6,7-kl]acridines I (R = Me, Et) were obtained in reaction of R<sub>2</sub>NCH<sub>2</sub>CH<sub>2</sub>NH<sub>2</sub> with 1-chloro-7-methoxy-4-nitro-9-phenoxyacridine. The mechanism of their formation was studied. The correct structure of these compds. was established on the basis of their <sup>1</sup>H NMR studies.  
IT 134039-84-2  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with dialkylethylenediamines)  
RN 134039-84-2 CA  
CN Acridine, 1-chloro-7-methoxy-4-nitro-9-phenoxy- (9CI) (CA INDEX NAME)

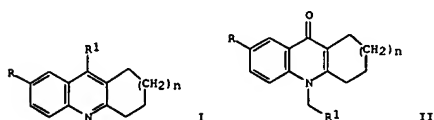


L13 ANSWER 36 OF 400 CA COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 116:151306 CA  
TITLE: Fluorine-containing imino compounds  
INVENTOR(S): Uneyama, Kenji  
PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
CODEN: JKOXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:  
PATENT NO. KIND DATE APPLICATION NO. DATE  
JP 03264557 A2 19911125 JP 1990-62114 19900313  
PRIORITY APPLN. INFO.: JP 1990-62114 19900313  
OTHER SOURCE(S): MARPAT 116:151306  
AB Title compds. F3CCR1:NR [I: R = (substituted) Ph, benzyl, alkoxy-carbonyl, alkyl-carbonyl; R<sub>1</sub> = C<sub>2</sub>-10 alkyl, nonhalogen-substituted C1-6 alkyl, (substituted) C2-6 alkenyl, (substituted) C2-6 alkynyl, hydrazino, R<sub>2</sub>NHNH, R<sub>3</sub>NH, R<sub>4</sub>ONH, cyano, imidazolyl, triazolyl, azido, R<sub>2</sub>O<sub>2</sub>CNH, R<sub>2</sub>N(CO<sub>2</sub>R<sub>3</sub>)NH; R<sub>2</sub>, R<sub>3</sub> = (substituted) alkyl, Ph, benzyl; R<sub>4</sub> = (substituted) alkyl], useful as intermediates for agrochems. and pharmaceuticals, are prepared thus, treating F3CCCl:NC<sub>6</sub>H<sub>4</sub>OMe-p with an Et Grignard reagent gave 83% I  
(R = p-methoxyphenyl, R<sub>1</sub> = Et).  
IT 126855-84-3P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 126855-84-3 CA  
CN 3-Quinolincarboxylic acid, 4-hydroxy-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)

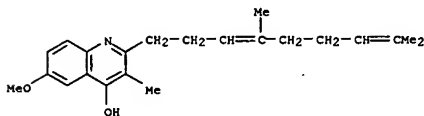


L13 ANSWER 37 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 115:279784 CA  
 TITLE: Synthesis of O- and N-(epoxypropyl and 3-substituted-amino-2-hydroxypropyl) derivatives of 11-hydroxy-6H-tetrahydrocyclohepta(b)quinoline and 7-chloro-9-hydroxytetrahydroacridine as potential antiamebic agents  
 AUTHOR(S): Asthana, Pratibha; Rastogi, Shri Nivas; Ghosal, Sheela; Das, S. R.  
 CORPORATE SOURCE: Div. Med. Chem., Cent. Drug Res. Inst., Lucknow, 226 001, India  
 SOURCE: Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (1991), 30B(9), 893-7  
 CODEN: IJSBDB; ISSN: 0376-4699  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 GI

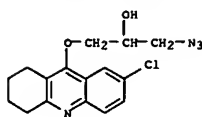


AB Cycloheptaquinolines I [ R = H, R1 = 2,3-epoxypropoxy, OCH2CH(OH)CH2R2;  
 R2 = morpholino, N3; n = 2] and cycloheptaquinolinones II [ R = H, R1 = CH(OH)CH2R2; R2 = morpholino, N3; n = 2] and acridines I [ R = Cl; R1 = 2,3-epoxypropoxy, OCH2CH(OH)CH2R2, NHBU; R2 as above, n = 1] and acridinones II [ R = Cl, R1 as above, n = 1] were prepared starting from anthranilic acid and cycloheptanone or 5-chloroanthranilic acid and cyclohexanone resp. I (R = H, R1 = 2,3-epoxypropoxy, n = 2; R = Cl, R1 = NHBU, n = 1) showed antiamebic activity against E. histolytica in vitro, but were not effective in vivo.  
 IT 137438-08-5P  
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and antiamebic activity of)  
 RN 137438-08-5 CA  
 CN 2-Propanol, 1-azido-3-[(7-chloro-1,2,3,4-tetrahydro-9-acridinyl)oxy]-(9CI) (CA INDEX NAME)

L13 ANSWER 38 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 115:226843 CA  
 TITLE: Biological activity of quinoline derivatives as inhibitors of NADH-ubiquinone oxidoreductase in the respiratory chain  
 AUTHOR(S): Chung, Kun Hoe; Cho, Kwang Yun; Takahashi, Nobutaka; Yoshida, Shigeo  
 CORPORATE SOURCE: Org. Div. I, Korea Res. Inst. Chem. Technol., Daejeon, S. Korea  
 SOURCE: Han'guk Nonghwa Hakhoechi (1991), 34(1), 43-8  
 CODEN: JKACA7; ISSN: 0368-2897  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB New quinoline compds. were designed, synthesized, and examined with submitochondrial particles. Most compds. showed high activity against NADH-ubiquinone oxidoreductase. Inhibition activity was mainly affected by the length of the lipophilic part, regardless of bulkiness or location of a Ph group in the side chain. Functionally optimal localization of the  $\beta$ -Me group was demonstrated to be on the nuclei of the quinoline derivs. so that either deletion or insertion of a methylene on the group eliminated its activity.  
 IT 137078-83-2  
 RL: BIOL (Biological study) (NADH-ubiquinone oxidoreductase of mitochondria inhibition by)  
 RN 137078-83-2 CA  
 CN 4-Quinololinol, 2-(4,8-dimethyl-3,7-nonadienyl)-6-methoxy-3-methyl- (9CI) (CA INDEX NAME)

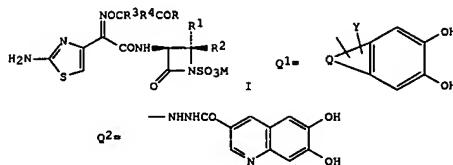


L13 ANSWER 37 OF 400 CA COPYRIGHT 2005 ACS on STN (Continued)



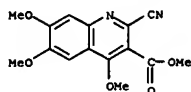
L13 ANSWER 39 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 115:158831 CA  
 TITLE: Preparation of aztreonam 2-(quinolinylcarbonyl)hydrazides and analogs as antibiotics  
 INVENTOR(S): Ermann, Peter Hans; Straub, Henner  
 PATENT ASSIGNEE(S): E. R. Squibb and Sons, Inc., USA  
 SOURCE: Eur. Pat. Appl., 40 pp.  
 CODEN: EPXKDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO.   | DATE       |
|---|------|----------|-------------------|------------|
| EP 420069   | A2   | 19910403 | EP 1990-118218    | 19900921   |
| EP 420069   | A3   | 19910605 |                   |            |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE |      |          |                   |            |
| CA 2024282  | AA   | 19910322 | CA 1990-2024282   | 19900830   |
| JP 03120276   | A2   | 19910522 | JP 1990-254057    | 19900921   |
| PRIORITY APPLN. INFO.:                                    |      |          | US 1989-410217    | A 19890921 |
| OTHER SOURCE(S):  |      |          | MARPAT 115:158831 |            |
| GI  |      |          |                   |            |

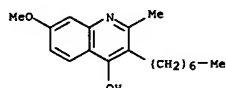


AB The title compds. [I; M = H, cation; R = NHNHCOAR5; A = bond, alkylene; R1, R2 = H, (cyclo)alkyl, alkenyl, (un)substituted Ph, etc., or 1 of R1, R2 = H and the other = N3, halomethyl, alkoxy, carbonyl, styryl, CO2H, etc.; R3, R4 = H, alkyl; CR3R4 = cycloalkylidene; R5 = heterocyclic group Q1; Q = atoms to complete a 5- or 6-membered (aromatic) heterocyclic ring; Y = NH2, OH, CO2H, halo, etc.] were prepared as antibiotics (no data). Thus, 6,7-dihydroxy-3-quinolinecarboxylic acid hydrazide (preparation given) was condensed with aztreonam to give I (M = K, R = quinolinylcarbonylhydrazo group Q2, R1 = Me, R2 = H, R3 = R4 = Me).  
 IT 135215-16-6P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

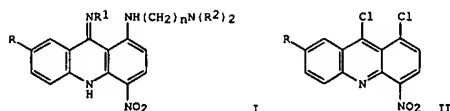
L13 ANSWER 39 OF 400 CA COPYRIGHT 2005 ACS on STN (Continued)  
 (prepn. and reaction of, in prepn. of antibiotics)  
 RN 135215-16-6 CA  
 CN 3-Quinolinecarboxylic acid, 2-cyano-4,6,7-trimethoxy-, methyl ester (9CI)  
 (CA INDEX NAME)



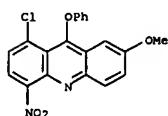
L13 ANSWER 40 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 115:105486 CA  
 TITLE: Quinoline esters as potential antimalarial drugs: effect on relapses of Plasmodium cynomolgi infections in monkeys  
 AUTHOR(S): Puri, S. K.; Dutta, G. P.  
 CORPORATE SOURCE: Div. Microbiol., Cent. Drug Res. Inst., Lucknow, 226001, India  
 SOURCE: Transactions of the Royal Society of Tropical and Hygiene (1990), 84(6), 759-60  
 CODEN: TRSTAZ; ISSN: 0035-9203  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Two compds. of the quinoline ester series, WR 197236 (6-butyl-4-hydroxy-3-methoxycarbonyl-7-β-phenoxyethoxyquinoline) and WR 194905 (4-acetoxy-6-decyloxy-7-isopropoxy-3-methoxycarbonyl-quinoline), exhibit anti-relapse activity against sporozoite-induced P. cynomolgi B infections in rhesus monkeys. Both the compds. have been found to be curative when given i.m. in 7 daily doses of 15 mg/kg, and no relapses were observed during the observation period of 120 d.  
 IT 4939-34-8, WR 7295  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (antimalarial activity of, against Plasmodium cynomolgi)  
 RN 4939-34-8 CA  
 CN 4-Quinololinol, 3-heptyl-7-methoxy-2-methyl- (9CI) (CA INDEX NAME)



L13 ANSWER 41 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 114:247106 CA  
 TITLE: Synthesis and proton NMR characterization of substituted 1-amino-9-imino-4-nitro-9,10-dihydroacridines as potential antitumor agents  
 AUTHOR(S): Cholody, Wieslaw M.; Konopa, Jerzy; Antonini, Ippolito; Martelli, Sante  
 CORPORATE SOURCE: Dep. Pharm. Technol. Biochem., Tech. Univ. Gdansk, Gdansk, 80952, Pol.  
 SOURCE: Journal of Heterocyclic Chemistry (1991), 28(2), 209-14  
 CODEN: JHTCAD; ISSN: 0022-152X  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 114:247106  
 GI



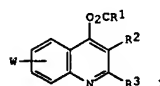
AB A convenient method for the synthesis of 1-amino-9-imino-4-nitro-9,10-dihydroacridines I [R = H, OMe; R1 = H, (CH2)nNR22, R2 = Me, Et; n = 2, 3] starting from dichloroacridines II is reported. Their 1H NMR data are reported and discussed in order to confirm the imino tautomeric structure.  
 IT 134039-84-2P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation and substitution reaction of, with dimethylaminoalkylamines)  
 RN 134039-84-2 CA  
 CN Acridine, 1-chloro-7-methoxy-4-nitro-9-phenoxy- (9CI) (CA INDEX NAME)



L13 ANSWER 42 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 114:228763 CA  
 TITLE: Preparation of insecticidal and acaricidal 4-acyloxyquinolines  
 INVENTOR(S): Minowa, Nobuto; Machinami, Tomoya; Shibahara, Seiji; Imamura, Keiichi; Iwata, Michiaki; Shimura, Masaru; Inouye, Shigeharu  
 PATENT ASSIGNEE(S): Meiji Seika Kaisha, Ltd., Japan  
 SOURCE: Eur. Pat. Appl., 26 pp.  
 CODEN: EPXKDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

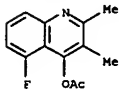
| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE        |
|-------------|------|----------|-----------------|-------------|
| EP 407192   | A2   | 19910109 | EP 1990-307357  | 19900705    |
| EP 407192   | A3   | 19911002 |                 |             |
| EP 407192   | B1   | 19970305 |                 |             |
| US 5190952  | A    | 19930302 | US 1990-549136  | 19900705    |
| EP 669321   | A1   | 19950830 | EP 1995-200798  | 19900705    |
| EP 669321   | B1   | 20000927 |                 |             |
| CA 2020667  | AA   | 19910108 | CA 1990-2020667 | 19900706    |
| CA 2020667  | C    | 20020604 |                 |             |
| JP 03128355 | A2   | 19910531 | JP 1990-179085  | 19900706    |
| JP 2633377  | B2   | 19970723 |                 |             |
| KR 134084   | B1   | 19980422 | KR 1990-10230   | 19900706    |
|             |      |          | JP 1989-176187  | A 19890707  |
|             |      |          | EP 1990-307357  | A3 19900705 |

OTHER SOURCE(S): MARPAT 114:228763  
 GI

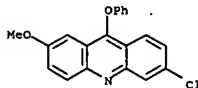


AB 4-Acyloxyquinolines I [R1 = H, C1-18 alkyl, C2-18 alkenyl, (substituted) C3-10 cycloalkyl, aryl, phenoxyalkyl, phenylalkyl, OR4, 2-furyl, 2-thienyl; R2 = H, C1-4 alkyl, CO2R5; R3 = H, C1-10 alkyl, C2-10 alkenyl such that R1 = OR4 when R2 = H and R3 = Me; R2R3 = (CH2)m, m = 3, 4; R4 = C1-4 alkyl, aryl; R5 = H, C1-4 alkyl; W = H, 1-4 halo atoms, C1-4 alkyl or alkoxy, excluding the compound where R1 = Me, R2 = R3 = W = H] were prepared via O-acylation of the corresponding quinolone with R1COCl or

L13 ANSWER 42 OF 400 CA COPYRIGHT 2005 ACS on STN (Continued)  
 (R1CO)20. Thus, a soln. of 2,3-dimethyl-4-quinolone in Ac2O was stirred  
 h at 13° to give title compd. I (R1, R2 = Me, R1 = Ac, W = H) (II).  
 II at 100 ppm showed 1200% control of Myzus persicae aphids on cabbage  
 leaves. Formulations of I are described.  
 IT 133766-70-8P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of, as insecticide and acaricide)  
 RN 133766-70-8 CA  
 CN 4-Quinolone, 3-fluoro-2,3-dimethyl-, acetate (ester) (9CI) (CA INDEX NAME)



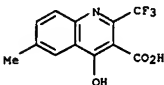
L13 ANSWER 43 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 114:202716 CA  
 TITLE: Cleavage of double helical DNA by copper ion in the presence of bisintercalator containing penta(ethylene glycol) connector chain  
 AUTHOR(S): Takenaka, Shigeori; Ihara, Toshihiro; Takagi, Makoto  
 CORPORATE SOURCE: Fac. Eng., Kyushu Univ., Fukuoka, 812, Japan  
 SOURCE: Journal of Molecular Recognition (1990), 3(4), 156-62  
 CODEN: JMORE4; ISSN: 0952-3499  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB In designing new DNA recognizing and cleaving reagents, here is introduced a bisacridine derivative (referred to as bisacridine) in which two acridine heterocycles are connected by a penta(ethylene glycol) bridging chain. This compound offers two possible functions: (1) stabilization of DNA bisacridine intercalator complex by metal ion in which the penta(ethylene glycol) chain stabilizes metal ions binding to the phosphate site of DNA, where the penta(ethylene glycol) chain constitutes a part of a pseudomacrocyclic ligand for metal binding; and (2) enhancement of metal-assisted hydrolytic cleavage of DNA by means of a metal concentration effect by the pseudomacrocyclic etheral chain. The binding isotherms of bisacridine with DNA in the presence of metal ions showed that the binding was mainly governed by the cation exchange reaction on the anionic DNA polymer chain, i.e., the exchange between metal ions and the cationic bisacridine. The bisacridine showed an increased DNA binding ability compared to quinacrine, the monoacridine counterpart, and caused an enhancement of DNA cleavage in the presence of Cu<sup>2+</sup> ions. Addnl. expts. which included DNase I footprinting in the presence of bisacridine and the DNA cleavage by Cu<sup>2+</sup>/bisacridine using a 32P end-labeled DNA fragment, suggested that the Cu<sup>2+</sup>-assisted DNA cleavage sites in the presence of bisacridine were in reasonable overlap with the DNA binding sites of bisacridine.  
 IT 7478-26-4  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with diaminotetraoxatetradecane dihydrochloride)  
 RN 7478-26-4 CA  
 CN Acridine, 3-chloro-7-methoxy-9-phenoxy- (9CI) (CA INDEX NAME)



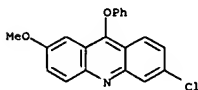
L13 ANSWER 44 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 114:121709 CA  
 TITLE: Preparation of (aromatic) fluoroimines as drugs and agrochemicals  
 INVENTOR(S): Uneyama, Kenji  
 PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JHXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:  

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|-------------|------|----------|-----------------|----------|
| JP 02229147 | A2   | 19900911 | JP 1989-51080   | 19890303 |

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 PRIORITY APPLN. INFO.: JP 1989-51080 19890303  
 OTHER SOURCE(S): MARPAT 114:121709  
 AB CF3CR1:NR [I: R = (substituted) Ph, CH2Ph, alkoxy- or alkylcarbonyl; R1 = (substituted) alkyl where substituent is not halogen, (substituted) alkenyl, alkynyl, amino, or hydrazino, cyano, imidazolyl, triazolyl] are prepared as drugs, agrochems. (no data), or their intermediates. Thus, treating CF3CONHC6H4(OMe)-4 with PCl5 gave 3% I (R = C6H4OMe-4, R1 = Cl), which was treated with MeCOCH2CO2Et and NaH in THF at room temperature for 3 h to give 65% I [R = C6H4(OMe)-4, R1 = CH(COMe)CO2Et]. Cyclization of I [R = C6H4OMe-4, R1 = CH(COMe)CO2Et] by reflux gave 70% 2-trifluoromethyl-4-hydroxy-6-methyl-3-methylcarbonylquinoline, which has herbicidal activity at 50-100 g/a.  
 IT 126855-84-3P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 126855-84-3 CA  
 CN 3-Quinolonecarboxylic acid, 4-hydroxy-6-methyl-2-(trifluoromethyl)- (9CI) (CA INDEX NAME)



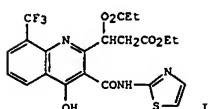
L13 ANSWER 45 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 114:97656 CA  
 TITLE: Bis-9-acridinyl derivative containing a viologen linker chain: electrochemically active intercalator for reversible labeling of DNA  
 AUTHOR(S): Takenaka, Shigeori; Ihara, Toshihiro; Takagi, Makoto  
 CORPORATE SOURCE: Fac. Eng., Kyushu Univ., Fukuoka, 812, Japan  
 SOURCE: Journal of the Chemical Society, Chemical Communications (1990), (21), 1485-7  
 CODEN: JCCCAT; ISSN: 0022-4936  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB A new synthetic bis-9-acridinyl derivative containing a viologen linker chain binds strongly to DNA and shows a typical cyclic voltammogram, indicating a potential for use as a reversible electrochem. labeling agent for DNA.  
 IT 7478-26-4  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (reaction of, with bromopropylamine hydrobromide)  
 RN 7478-26-4 CA  
 CN Acridine, 3-chloro-7-methoxy-9-phenoxy- (9CI) (CA INDEX NAME)



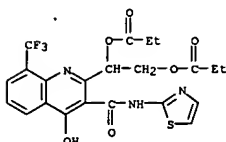
10/715,846

L13 ANSWER 46 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 114:75150 CA  
 TITLE: Inhibitor of cyclooxygenase and 5-lipoxygenase  
 AUTHOR(S): Anon.  
 CORPORATE SOURCE: UK  
 SOURCE: Research Disclosure (1990), 317, 719 (No. 31727)  
 CODEN: RSDSBB; ISSN: 0374-4353  
 DOCUMENT TYPE: Journal; Patent  
 LANGUAGE: English  
 PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE     |
|------------------------|------|----------|-----------------|----------|
| RD 317027              |      | 19900910 |                 |          |
| PRIORITY APPLN. INFO.: |      |          | RD 1990-317027  | 19900910 |
| GI                     |      |          |                 |          |

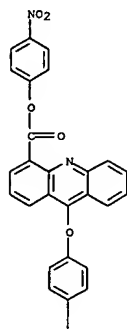


AB I is claimed as an inhibitor of cyclooxygenase and 5-lipoxygenase and to be useful in the treatment of psoriasis.  
 IT 124822-90-8  
 RL: BIOL (Biological study)  
 (cyclooxygenase and lipoxygenase inhibitor, for psoriasis treatment)  
 RN 124822-90-8 CA  
 CN 3-Quinolincarboxamide, 2-(1,2-bis(1-oxopropoxy)ethyl)-4-hydroxy-N-2-thiazolyl-8-(trifluoromethyl)- (9CI) (CA INDEX NAME)



L13 ANSWER 47 OF 400 CA COPYRIGHT 2005 ACS on STN (Continued)  
 (CA INDEX NAME)

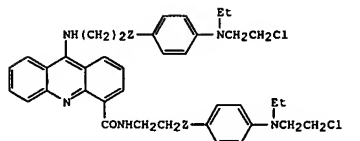
PAGE 1-A



PAGE 2-A

NO2

L13 ANSWER 47 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 114:61904 CA  
 TITLE: Synthesis and evaluation of DNA-targeted spatially separated bis(aniline mustards) as potential alkylating agents with enhanced DNA cross-linking capability  
 AUTHOR(S): Gourdie, Trudi A.; Prakash, A. S.; Wakelin, Laurence P. G.; Woodgate, Paul D.; Denny, William A.  
 CORPORATE SOURCE: Sch. Med., Univ. Auckland, Auckland, N. Z.  
 SOURCE: Journal of Medicinal Chemistry (1991), 34(1), 240-8  
 CODEN: JMCQAR; ISSN: 0022-2623  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 114:61904  
 GI



AB DNA-targeted separated bis-mustards I (Z = CH2, S) were synthesized by attaching aniline mono-mustards at the 4- and 9-positions of the DNA-intercalating ligand 9-aminoacridine-4-carboxamide, with the intention of improving the low cross-link to monoadduct ratio found with most alkylating agents. The geometry of these compds. requires that, when the acridine binds to DNA by intercalation, one alkylating moiety is delivered to each DNA groove. Gel electrophoretic studies show that only one arm of these compds. (probably that attached to the 9-position) alkylates DNA, such alkylation occurring specifically in the major groove at the N7 of guanines. Cell-line studies confirm that the mode of cytotoxicity of these compds. (unlike that of untargeted aniline bis-mustards of comparable reactivity) is due to bulky DNA monoadduct formation. It is concluded that more information is required about the exact orientation of the initial monoadducts before ligands with specific DNA crosslinking ability can be designed.  
 IT 131042-29-0P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and amidation of)  
 RN 131042-29-0 CA  
 CN 4-Acridinecarboxylic acid, 9-(4-nitrophenoxy)-, 4-nitrophenyl ester (9CI)

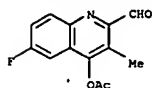
L13 ANSWER 48 OF 400 CA COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 114:6306 CA  
 TITLE: Preparation of 2,3-disubstituted-4-hydroxyquinolines as leukotriene D4 antagonists  
 INVENTOR(S): Minowa, Nobuto; Machinami, Tomoya; Shomura, Takashi; Sezaki, Masaji; Sasaki, Toru; Shibahara, Seiji; Inouye, Shigeharu  
 PATENT ASSIGNEE(S): Meiji Seika Kaisha, Ltd., Japan  
 SOURCE: Eur. Pat. Appl., 17 pp.  
 CODEN: EPXKDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.             | KIND | DATE     | APPLICATION NO. | DATE        |
|------------------------|------|----------|-----------------|-------------|
| EP 374765              | A1   | 19900627 | EP 1989-123280  | 19891215    |
| EP 374765              | B1   | 19940622 |                 |             |
| R: DE, FR, GB, IT      |      |          |                 |             |
| JP 02256665            | A2   | 19901017 | JP 1989-324967  | 19891214    |
| JP 2574489             | B2   | 19970122 |                 |             |
| US 5194617             | A    | 19930316 | US 1991-807946  | 19911210    |
| PRIORITY APPLN. INFO.: |      |          | JP 1988-319231  | A 19881217  |
|                        |      |          | US 1989-449012  | B1 19891211 |

OTHER SOURCE(S): MARPAT 114:6306  
 GI For diagram(s), see printed CA issue.  
 AB The title compds. (I; R = H, 1-4 halogen atoms or alkyl groups; R1 = H, R3CO; R2 = H, Me, Et; R3 = alkyl; Z = CH2CH2CH2, (HO)CHCH2CH2, (HO)CHC.tplbond.C, CH:CHCH2, CH2C.tplbond.C), LTD4 antagonists useful for treating allergic diseases and asthma, were prepared. A solution of 2-formyl-3-methyl-4-acetoxyquinoline in THF was added to a pre-stirred solution of Me(CH2)7PPh3Br and BuLi in THF/HMPA at -78° and the mixture was stirred 15 min at that temperature and 30 min at -42°. The product (20) in MeOH was stirred 10 min with aqueous Na2CO3 to give 87% I (R = H, R2 = Me, Z = trans-CH:CHCH2) (II). The latter at 2 µg/mL in vitro gave 100% inhibition of LTD4-induced contraction of guinea pig ileum. II in an anoxia test in mice gave a surviving time of 293.5 s vs. 122.2 s for a control.  
 IT 130772-19-9, 2-Formyl-3-methyl-4-acetoxy-6-fluoroquinoline  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (Wittig reaction of, with octyltriphenylphosphonium bromide, in preparation of LTD4 antagonist)  
 RN 130772-19-9 CA  
 CN 2-Quinolincarboxaldehyde, 4-(acetoxy)-6-fluoro-3-methyl- (9CI) (CA INDEX NAME)

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L13 ANSWER 48 OF 400 CA COPYRIGHT 2005 ACS on STN (Continued)



L13 ANSWER 49 OF 400 CA COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 113:207477 CA  
 TITLE: Chromogenic substrates for peroxidase-linked immunoassays  
 INVENTOR(S): Vermaulen, Nicolaas Marthinus Johannes; Petrie, Charles Robert  
 PATENT ASSIGNEE(S): Microprobe Corp., USA  
 SOURCE: PCT Int. Appl., 41 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE     | APPLICATION NO. | DATE     |
|------------|------|----------|-----------------|----------|
| WO 9006372 | A1   | 19900614 | WO 1989-US5407  | 19891130 |

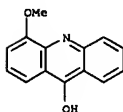
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W: JP  
 RW: AT, BE, CH, DE, ES, FR, GB, IT, LU, NL, SE  
 PRIORITY APPLN. INFO.: US 1988-278633 A 19881201

OTHER SOURCE(S): MARPAT 113:207477

AB Substituted naphthalenes or indoles in combination with substituted hydrazones are used as chromogenic systems for the detection of peroxidase, particularly in peroxidase-dependent ELISA. The products formed are intensely colored and insol., making them useful for filter-hybridization assays. Aliquots 10 µl of dilns. of biotinylated anti-goat IgG were blotted onto Pall Immunodyne membranes and detected with streptavidin-coupled horseradish peroxidase using a number of the novel naphthols (e.g., 4-chloronaphthol, 6-bromo-2-naphthol, 5-hydroxyindole, etc.) and indoles in combination with 3-methyl-2-benzothiazolinone hydrazone. Antibodies ranged from 0.01 to 2 ng were readily detectable. The synthesis of some of these substrates and their use in the detection of human papilloma virus in tissue samples by ELISA are described.

IT 73663-88-4  
 RL: BIOL (Biological study)  
 (chromogenic assays for peroxidase using hydrazones and)  
 RN 73663-88-4 CA  
 CN 9-Acridinol, 4-methoxy- (9CI) (CA INDEX NAME)



L13 ANSWER 50 OF 400 CA COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 113:184219 CA  
 TITLE: DNA-directed alkylating ligands as potential antitumor agents: sequence specificity of alkylation by intercalating aniline mustards  
 AUTHOR(S): Prakash, A. S.; Denny, William A.; Gourdie, Trudi A.; Valu, Kisione K.; Woodgate, Paul D.; Wakelin, Laurence

P. G.  
 CORPORATE SOURCE: Peter MacCallum Cancer Inst., Melbourne, Australia  
 SOURCE: Biochemistry (1990), 29(42), 9799-807  
 CODEN: BICHAW; ISSN: 0006-2960

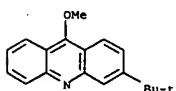
DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB The sequence preferences for alkylation by a series of novel para-substituted aniline mustards linked to the DNA-intercalating chromophore 9-aminoacridine by an alkyl chain of variable length were studied by using procedures analogous to Maxam-Gilbert reactions. The compds. alkylate DNA at both guanine and adenine sites. For mustards linked to the acridine by a short alkyl chain through a para O- or S-link group, 5'-GT sequences are the most preferred sites at which N7-guanine alkylation occurs. For analogs with longer chain lengths, the preference for 5'-GT sequences diminishes in favor of N7-adenine alkylation at the complementary 5'-AC sequence. Mg ions are shown to selectively inhibit alkylation at the N7 of adenine (in a major groove) by these compds. but not the alkylation at the N3 of adenine (in the minor groove) by the antitumor antibiotic CC-1065. Effects of chromophore variation were also studied by using aniline mustards linked to quinazoline and sterically hindered tert-butyl-9-aminoacridine chromophores. The results demonstrate

that in this series of DNA-directed mustards the noncovalent interactions of the carrier chromophores with DNA significantly modify the sequence selectivity of alkylation by the mustard. Relationships between the DNA alkylation patterns of these compds. and their biol. activities are discussed.

IT 129787-15-1P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and reaction of, with  
 [[bis(chloroethyl)amino]phenyl]propanedia  
 mine)

RN 129787-15-1 CA  
 CN Acridine, 3-(1,1-dimethylethyl)-9-methoxy- (9CI) (CA INDEX NAME)





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FILE 'REGISTRY' ENTERED AT 10:24:54 ON 20 SEP 2005

|    |                    |
|----|--------------------|
| L1 | STRUCTURE UPLOADED |
| L2 | 39 S L1 SAM        |
| L3 | STRUCTURE UPLOADED |
| L4 | 35 S L3 SAM        |
| L5 | 2070 S L1 FULL     |
| L6 | 718 S L3 FULL      |

FILE 'CA' ENTERED AT 10:26:09 ON 20 SEP 2005

|     |                       |
|-----|-----------------------|
| L7  | 218 S L5              |
| L8  | 324 S L6              |
| L9  | 25 S L7 AND L8        |
| L10 | 517 S L7 OR L8        |
| L11 | 492 S L10 NOT L9      |
| L12 | 408 S L11 AND PY<1998 |
| L13 | 400 S L11 AND PY<1997 |

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---Logging off of STN---

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Executing the logoff script...

=> LOG Y

STN INTERNATIONAL LOGOFF AT 10:28:10 ON 20 SEP 2005